MINISTRY OF NATURAL RESOURCES

Aylmer District

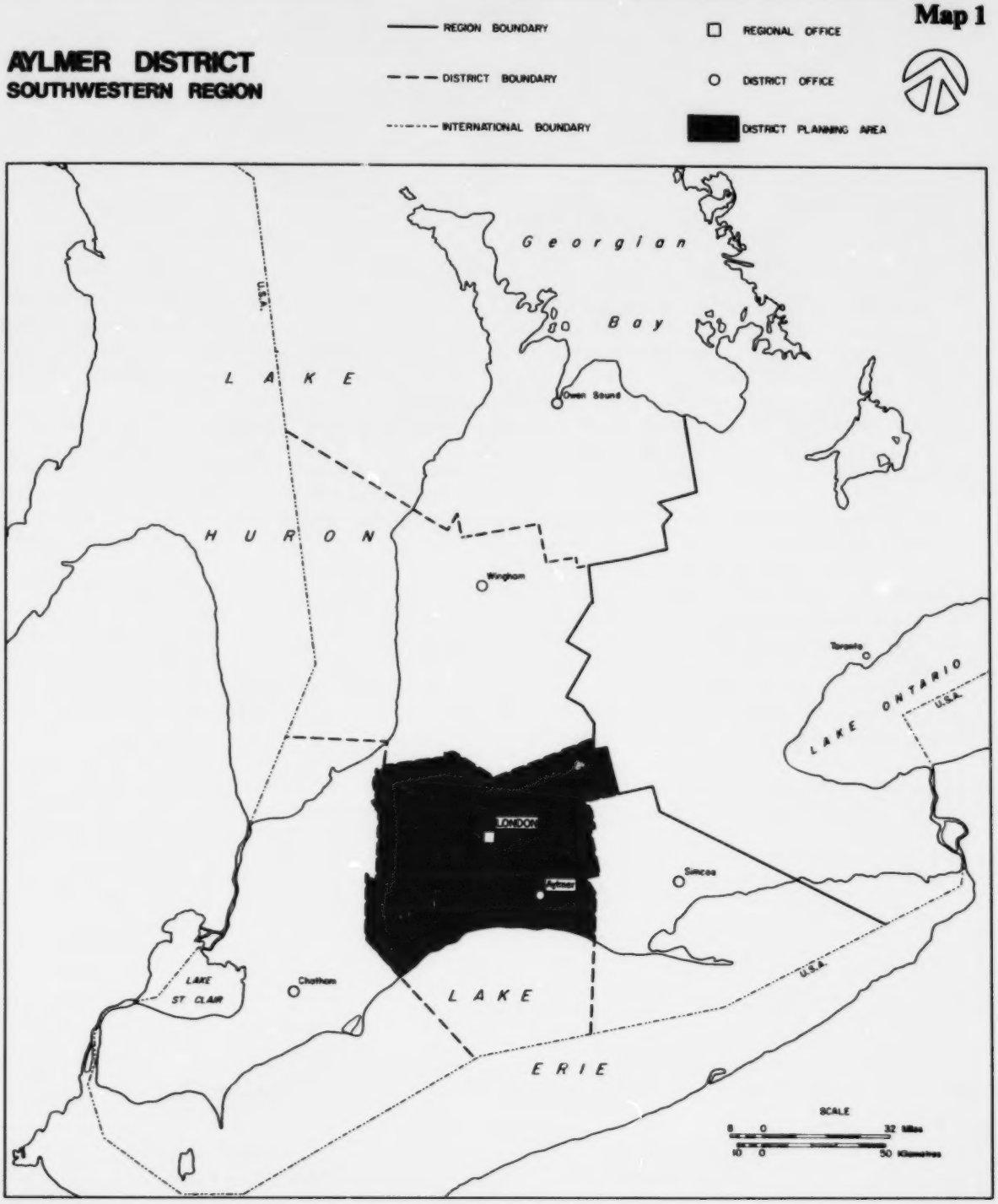
LAND USE GUIDELINES

Ontario
Ministry of Natural Resources
Hon. Alan W. Pope
Minister
W. T. Foster
Deputy Minister

1983

Map 1

AYLMER DISTRICT
SOUTHWESTERN REGION



Ministry of Natural Resources
Ontario

FOREWORD

The Ministry of Natural Resources has a primary responsibility for the management of the province's natural resources, in particular those related to resource development and outdoor recreation.

This document will serve as the overall design for integrated resource development in Aylmer District. It is also intended to provide others with an understanding of the ministry's mandate and its programs which rely on both Crown and private lands for success.

To ensure an integrated approach, the *Aylmer District Land Use Guidelines* identify where and in what manner the ministry may use Crown land and to what extent it may wish to suggest uses of private land, in working towards the achievement of ministry objectives.

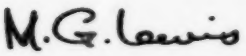
For Crown land the ministry must consider the land and water requirements for both its own programs and those of other government agencies. This will require ongoing liaison with these other agencies. The ministry will continue to consult with private landowners and local municipalities since the latter have the responsibility for control of private land use.

The program targets and approaches outlined in this document follow the overall direction outlined in the ministry's *Southern Ontario Co-ordinated Program Strategy.* The *Land Use Guidelines* may serve as one of the sources of information for ministry involvement in the planning process of municipalities and other agencies. It is recognized, however, that this document has no legal status.

Planning is a continuous process and must be responsive to changing needs, information and technology. Thus the targets and guidelines presented in this document are subject to revision based on such factors as changes in government policy, new or refined resource information and significant changes to land use in other planning documents. To accommodate changes, the *Land Use Guidelines* will normally be reviewed every ten years and will involve full public consultation.

Comments may be addressed to the District Manager at any time.

Regional Director
Southwestern Region



District Manager
Aylmer District

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I INTRODUCTION

The goal of the Ministry of Natural Resources is to provide opportunities for outdoor recreation and resource development for the continuous social and economic benefit of the people of Ontario and to administer, protect and conserve public lands and waters.

The ministry has programs to ensure the availability of both renewable and non-renewable resources. It regulates the use of these resources for the long term benefit of the people of Ontario.

The ministry recognizes that outdoor recreation is important for economic and social well-being. It also recognizes that physical, biological, cultural and historical resources are important elements in the environment and that representative and unique components should be protected.

The ministry has two responsibilities in land and water management: the first is custodial, to protect the capability and quality of public land and water; the second is to participate with other agencies in the planning and control of the total land area.

In order that its programs might better achieve that goal, the ministry is developing an integrated approach to land use resource based activities throughout Ontario. It consists of guidelines for the province, for the southern, northeastern and northwestern planning regions, and for the ministry's 47 administrative districts. These guidelines state in broad and comprehensive terms how the ministry wishes to use or influence the use of lands and waters.

The ministry's guidelines for southern Ontario were published in 1982 after public review. This document, the *Co-ordinated Program Strategy for the Ministry of Natural Resources in Southern Ontario,* provides the basis for the policies, targets and guidelines which will be adopted for each district in southern Ontario.

The Aylmer District is one of the Ministry of Natural Resources' administrative districts in the Province of Ontario. It consists of the Counties of Middlesex, Elgin and Oxford, excluding the Townships of Blenheim and Norwich. The land and water area totals about 940,000 hectares (2,321,800 acres). The moderate climate and long growing season makes this one of the most intensive agricultural areas in Ontario, with corn and tobacco being the predominant crops. Aylmer District also has one of the largest urban areas in southern Ontario—the City of London, contributing a population of over 268,000 to the total district population of about 500,000 people. The mixture of urban and rural, with a wide and varied resource base, provides diversity to the entire area.

The purpose of these *Land Use Guidelines* is to define the program objectives, targets and broad guidelines that Aylmer District may adopt in order to achieve its contribution to the targets in the *Co-ordinated Program Strategy.* The guidelines for Aylmer District identify:

- the targets for each program;
- generally where these targets could be achieved;
- strategies for the implementation of these targets, including how the ministry plans to work with conservation authorities, municipalities and individual landowners; and
- how the ministry programs could be integrated.

The benefit of using targets is that it provides a measurable indication of the degree of achievement of certain ministry program policies.

Targets have been developed for ministry programs to the year 2000 (2020 for forestry). These targets assume an annual growth of between one and two percent in resource needs and are consistent with recent southern Ontario projections and with demand forecasts.

The targets represent future levels which will generally be achieved. It is not intended that all targets be achieved immediately. The intent is to aim for target achievement over the next 20 years (40 years for forestry). A number of factors may affect achievement of the stated targets, including:

- validity of the original assumptions on which the target was based;
- legislative approval of necessary funding and staffing required to carry out the level of resource management on which target achievement is based;
- changing economic and social conditions on a local or provincial basis;
- new or improved inventory and information which could result in a change of the original estimates; and
- a more thorough analysis of original information.

Where there are changes in targets, the district guidelines will be amended accordingly.

The ministry recognizes that private landowners, other government agencies, municipalities, conservation authorities and interest groups are key partners in any effort to achieve effective and co-ordinated resource management. The ministry will continue to work with these groups, especially with municipalities through the ministry's plan input and review program to ensure that resource values are considered in local planning documents. Dialogue with these groups will occur on a continuing basis.

There will be instances when the ministry and others, for example another government agency, will have different intentions for the same area. When such situations are identified, the ministry will enter into negotiations to arrive at an acceptable solution. The way in which the ministry will work with municipalities, conservation authorities and others is outlined in Part V, Application.

The public plays a major role in the development of the ministry's *Land Use Guidelines*. Public consultation is an important part of the land use planning process.

In southern Ontario, public involvement in ministry planning began with the development of the *Southern Ontario Co-ordinated Program Strategy* which outlines the objectives, targets and general direction which the ministry proposes to pursue.

Public consultation in the preparation of the *Aylmer District Land Use Guidelines* began with the holding of open houses in June, 1982. At that time the public was asked to comment on the accuracy of the ministry's information, to provide any additional knowledge they had of the planning area and raise any problems or issues they felt should be addressed during the process. Also, they were provided with an overview of the ministry's role and responsibilities and provided with a perspective to assist in the review of the draft district guidelines which were nearing completion.

In July, 1982 a *Draft Aylmer District Land Use Strategy* was released and in July/August additional open houses were held to explain the direction proposed in the strategy and invite public comment. In addition to receiving many verbal and written comments as a result of the open houses, the ministry held follow-up meetings with municipalities and interest groups at their request.

Based on the analysis and evaluation of the public input received, *Land Use Guidelines* were prepared.

Copies of comments received are available for viewing in the Aylmer District office, the ministry's main office public reading room and the legislative library at Queen's Park. Details of the public consultation program are found in the appendix to this report.

The planning process is a dynamic one influenced by numerous variables. These include such things as changing land use requirements, competing land use activities, changing resource values, changes in supply and demand, a changing resource base and the need to revise resource targets. The planning process permits consideration of amendments, revisions, changes or informal reviews at any time. These may be initiated by the ministry or externally.

This report is best viewed as a working guideline which will be subject to considerable review and re-evaluation as the ministry proceeds to apply it. The *Aylmer District Land Use Guidelines* are an important component in the ministry's ongoing management program for Ontario's natural resources.

GENERAL AND PROGRAM POLICIES AND GUIDELINES

The *Land Use Guidelines* for Aylmer District are comprised of general policies and guidelines that are applicable to all ministry programs and activities (Part III of this document) and specific program objectives, targets and land use guidelines (Part IV). The guidelines for implementing program objectives and targets are outlined in Part V. Part V also presents program management guidelines.

Throughout this paper, each area of concern or program is discussed individually. A standard format has been used in each case, and this format is as follows:

Objectives These sections consist of the ministry's southern Ontario policy for the area of concern or program in question, quoted from *Southern Ontario Co-ordinated Program Strategy.*

Target The sections on district targets provide the quantitative targets for each ministry program in Aylmer District. No targets are provided for the general areas of concern.

Discussion Each program target has been evaluated in terms of the known capabilities and existing and anticipated use characteristics of the resource in the district. The information presented in the discussion sections is intended to demonstrate the extent to which the targets can be achieved.

Strategy These sections outline the strategy which the ministry intends to pursue in Aylmer District so as to work towards achievement of the district targets. Also outlined is where, within the district, effort to achieve the targets will be concentrated.

Integration A major aim of the *Land Use Guidelines* is an integrated approach to program target achievement to ensure the efficient use of land and water (see Part IIIA). The information presented in the integration sections highlights where and how a particular program can assist the achievement of other ministry program interests.

SUMMARY OF THE DISTRICT LAND USE GUIDELINES

Three main general resource areas were used in preparing the *Land Use Guidelines*—Middlesex, Elgin and Oxford Counties. The potential contribution of each of these planning areas to program target achievement is illustrated on Map 2 and in the pie shaped diagrams in Part IV, Figures 1, 2, 4-9 and 12. The areas of individual program interest are found on Maps 3 through 8. The General Resource Areas Map 9, in the back pocket of the document, represents a combination of program concerns on a district basis and highlights the most critical aspects of the *Land Use Guidelines*, with boundaries and brief descriptions of the general resource areas.

Part II summarizes the targets for Aylmer District. Present production, potential production and trend information is presented along with the percentage of target achievement, both by sub-district planning area and land ownership class where information is available. Program area emphasis necessary to meet the targets is also identified.

II GUIDELINES SUMMARIZED

Present production, potential production and targets for Aylmer District are presented in chart form along with the percentage of each target that is to be achieved in each of the three municipal planning areas. Additionally, the percentage to which the ministry hopes to achieve on municipal, conservation authority, private and Crown land, is presented where this can be identified.

II GUIDELINES SUMMARIZED

Resource Target	Trend (C – Constant, D – Decrease, I – Increase) Supply	Trend Demand	Resource Analysis Present	Resource Analysis Potential	Resource Location: Program Area Emphasis	Resource Location: Planning Area	Resource Location: Target as a % of district total	Target Achievement by Ownership: Municipal	Conservation Authority	Private	Crown	Joint (specified)
Forestry 154,000 cu m/yr.	D	C	240,000 cu m/yr.	303,000 cu m/yr.	Existing productive hardwood forest	1) Elgin 2) Middlesex 3) Oxford	Target will be achieved uniformly from existing productive forests and W.I.A.'s across all three counties[1]			74%	1%	25% (Municipal and Conservation Authorities)
Mineral Aggregates 192,000,000 tonnes (cumulative)	D	I	10,000,000 tonnes/yr. clay 40,000 tonnes/yr.	2,876,000,000 tonnes (cumulative)	High potential mineral aggregate resource areas	1) Elgin 2) Middlesex 3) Oxford	4% 47% 49%	1%		99%		
Fossil Fuels No quantified target assigned	D	I	natural gas 9,300 10^3m^3/yr. oil 36,300 m^3/yr.	(known recoverable reserves)	Oil and natural gas production on land, natural gas production from Lake Erie	1) Elgin 2) Middlesex 3) Oxford	Oil / Natural Gas 29% / 92% 10% / 1% 61% / 7%	100%				
Fisheries – Sport 75,300 opportunities/yr.	C	I	50,500 opportunities/yr.	75,300 opportunities/yr.	Cool, cold and warm water streams and Lake Erie	1) Elgin 2) Middlesex 3) Oxford	45% 30% 25%	Inland streams and Lake Erie				
Commercial 1,109,000 kg/yr.	C	I	1,170,000 kg/yr. (10 year average)	1,109,000 kg/yr.	Fresh water fishery in Lake Erie	1) Elgin 2) Middlesex 3) Oxford	100% Lake Erie	Lake Erie				
Bait 20,000 dozen/yr.	C	I	20,000 dozen/yr. (Inland)	24,000 dozen/yr.	Cold, cool and warm water streams and Lake Erie	1) Elgin 2) Middlesex 3) Oxford	50% 35% 15%	Inland streams and Lake Erie				
Wildlife – Big Game Hunting 4,000 opportunities/yr.	I	I	4,000 opportunities/yr.	5,000 opportunities/yr.	Areas of big game habitat and population concentration	1) Elgin 2) Middlesex 3) Oxford	35% 30% 35%					

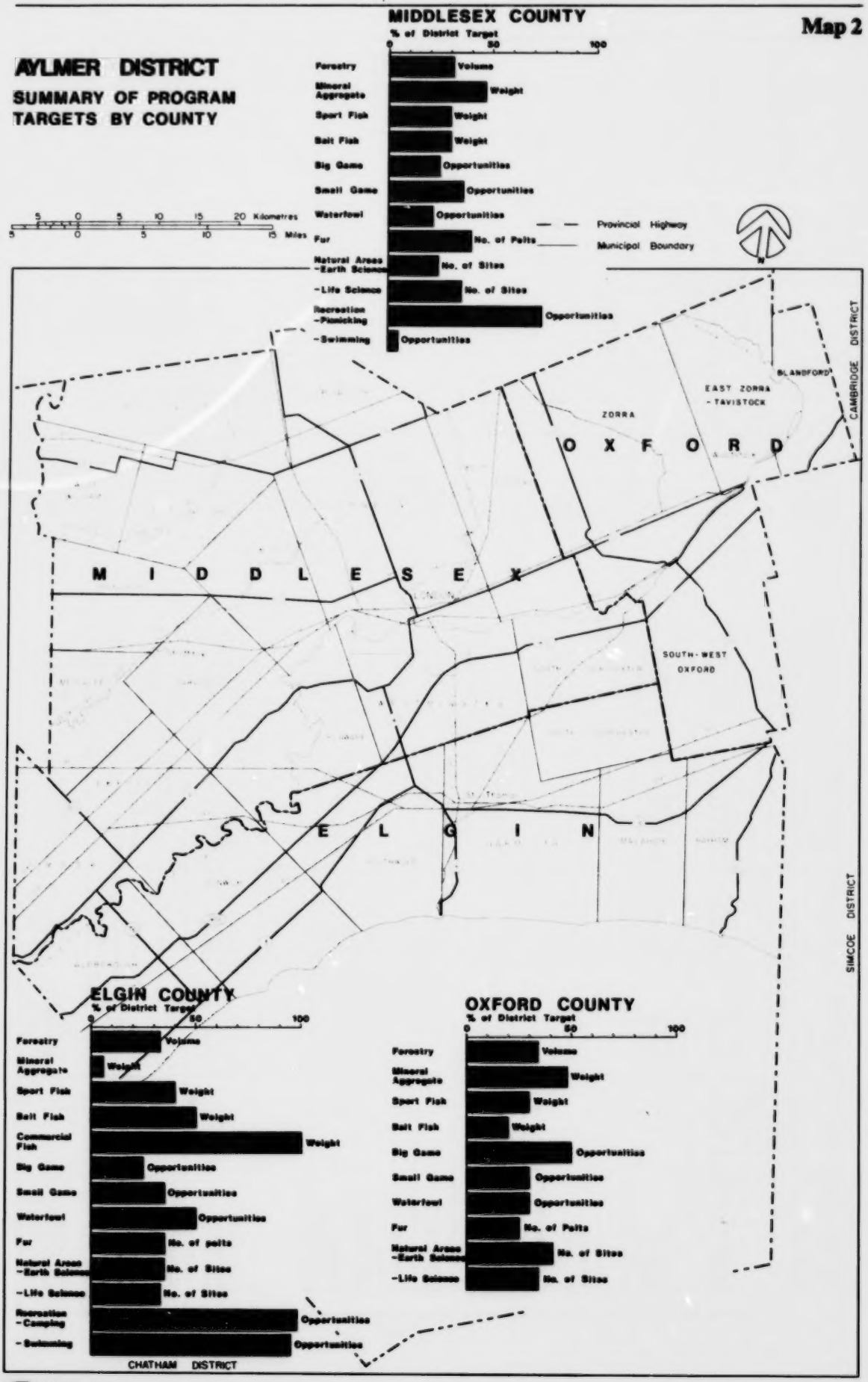
II GUIDELINES SUMMARIZED (continued)

Resource Target	Trend: C – Constant, D – Decrease, I – Increase		Resource Analysis		Resource Location			Target Achievement by Ownership				
	Supply	Demand	Present	Potential	Program Area Emphasis	Planning Area	Target as a % of district total	Municipal	Conservation Authority	Private	Crown	Joint (specified)
Small Game Hunting 76,000 opportunities/yr.	I	I	70,000 opportunities/yr.	94,000 opportunities/yr.	Important wildlife habitat	1) Elgin 2) Middlesex 3) Oxford	35% 35% 30%					
Waterfowl Hunting 25,000 opportunities/yr.	C	C	20,000 opportunities/yr.	36,000 opportunities/yr.	Wetland habitat	1) Elgin 2) Middlesex 3) Oxford	50% 20% 30%					
Trapping 20,000 pelts/yr.	C	C	20,000 pelts/yr.	20,000 pelts/yr.	Habitat e.g. wetlands, drainage ditches	1) Elgin 2) Middlesex 3) Oxford	35% 45% 20%					
Significant Earth Science Features	D	I	18	unknown	Identified earth science features	1) Elgin 2) Middlesex 3) Oxford	35% 24% 41% (Distribution of areas by county)			82%	6%	12% (Municipal and Conservation Authorities)
Significant Life Science Features	D	I	16	unknown	Identified life science features	1) Elgin 2) Middlesex 3) Oxford	33% 33% 34% (Distribution of areas by county)	15% (county)	21%	53%	11%	
Parks and Recreation Picknicking 74,000 opportunities/yr.	I	I	64,900 opportunities/yr.	267,800 opportunities/yr.	Existing parks	1) Elgin 2) Middlesex 3) Oxford	27% 73%				100%	
Camping 54,800 opportunities/yr.	I	I	54,100 opportunities/yr.	26,562 opportunities/yr.	Candidate parks	1) Elgin 2) Middlesex 3) Oxford	100%					
Swimming 452,900 opportunities/yr.	I	I	467,900 opportunities/yr.	20,300 opportunities/yr.	Existing and candidate parks	1) Elgin 2) Middlesex 3) Oxford	96% 4%					

(1) Woodland Improvement Act

AYLMER DISTRICT

SUMMARY OF PROGRAM TARGETS BY COUNTY



A: integrated resource management

1. POLICY STATEMENT

Programs will be integrated to ensure the efficient use of land and water to achieve ministry objectives.

2. DISCUSSION

The area of land and water in Aylmer District suitable and available for the achievement of ministry objectives is limited, and as a result, many activities must be carried out on the same area. Exclusive use of large areas for a single purpose is generally not possible, although in selected instances, it may be necessary.

3. STRATEGY

To be effective and efficient, the ministry plans to integrate its land use activities.

- apply the concept of multiple use to land and water management as follows:
  - normally require or encourage two or more compatible activities on the same major areas concurrently or sequentially over time; and
  - recognize that, in some circumstances, management of areas for a single purpose such as extraction, protection or recreation is necessary;
- provide direction for resource management planning;
- ensure that each program contributes, to the extent possible, to the achievement of all ministry objectives. Individual area management plans, including water management plans, will be directed to achieving as many ministry objectives as possible to ensure integrated management and increased efficiency; and
- permit interim use of candidate parks providing park values are protected. Uses and facilities which complement the achievement of park objectives will be encouraged. Uses which have no significant negative impact on the long term achievement of park objectives will be permitted with judicious controls. Uses which would conflict with the long term achievement of park objectives will be prohibited.

In this report, a direction is provided for integrated management. Analysis suggests that all objectives outlined are achievable by:

- seeking to integrate its resource management activities as much as possible with other agencies and private landowners, particularly the local conservation authorities and area municipalities to help ensure that programs are compatible and complementary; and
- seeking to integrate the watershed planning program of the conservation authorities with the ministry's strategy planning program.

B: public safety

1. POLICY STATEMENTS

The ministry will seek to eliminate loss of life and to minimize property damage and community disruption resulting from floods, erosion, earth slippage and forest fires.

The ministry will seek to eliminate injury and loss of life from hazards around abandoned pits, quarries, mine shafts and oil and gas wells.

The ministry will promote the safe pursuit of outdoor recreation and resource production activities.

2. DISCUSSION & STRATEGY

The first objective is met by the ministry in co-operation with conservation authorities and municipalities through efforts in stream flow forecasting, contingency planning, emergency response, watershed conservation, forest protection and through input to floodplain regulations and municipal plans and by-laws.

For erosion susceptible sites, 100 years of protection is the preferred standard. The regulatory flood for designation of floodplains in Ontario is defined as the regional flood or the 100 year flood, whichever is greater. In the case of this area of southwestern Ontario, including Aylmer District, this is the regional storm as defined by Hurricane Hazel. Conservation authorities have, where possible, adopted detailed programs, policies and operational criteria to apply more precisely the provincial standards to local conditions.

Hazard lands will be identified and policy for their appropriate uses will be implemented in municipal planning documents. A flood emergency response plan will be maintained and updated to provide a quick and effective provincial response to flood emergencies.

Owing to intensive development and high property and resource values, the potential damage from forest fires in southern Ontario is significant, although the extent of fires is usually small.

The area of ministry fire control activity corresponds with the area of extensive forest cover.

A forest fire emergency plan for protection of Crown lands and conservation authority agreement forests and municipal agreement forests, will be maintained by the ministry in Aylmer District. The fire management program of the district performs a support function that provides expert knowledge and specialized services to municipalities and conservation authorities in the matters of forest fire control and fire use. This includes providing advice for:

- preventing the occurrence of wild fires and controlling those wild fires that threaten values; and
- using prescribed fire as an approved resource management technique.

The second objective is met in conjunction with the Ministry of Labour through field inspection of abandoned pits, quarries, mine shafts and oil and gas wells and through appropriate follow-up action.

The third objective is met through hunter safety training courses and the administration of health and safety legislation and regulations, and portions of specific acts governing the safe pursuit of certain resource production activities, in conjunction with the Ministry of Labour.

C: environment

1. POLICY STATEMENT

The ministry will conduct its activities in an environmentally responsible manner.

2. DISCUSSION

The ministry is only one of several agencies which have legislated responsibility to maintain an acceptable environmental quality for the people of Ontario. Planning is required to co-ordinate the specific activities of the various agencies involved.

Achievement of ministry targets is contingent on a satisfactory environment being maintained. Of particular concern in this regard is the potential effect of acid rain. In Aylmer District, the greatest concern is with respect to the possible direct effect of acid rain on vegetation. Additionally, there is the concern however, for water quality throughout the lower Great Lakes, their watershed and river basins. For example, the achievement of fisheries targets may be adversely affected by acid rain. The ministry will work closely with other government agencies to monitor the effect of contaminants such as acid rain on the achievement of ministry objectives.

All programs of the ministry share in the responsible management of natural resources. Biologically sound management is a precept of forest, wildlife and fish management. The management of mineral aggregates includes both protection from incompatible activities and discouragement of the use of high quality materials where lower quality materials would be suitable. Where environmental impacts are inevitable, mitigating measures and/or rehabilitation are used.

3. STRATEGY

The ministry is currently developing a wetlands policy to be issued in the near future. Pending the issuance of this policy, the ministry plans to encourage the consideration of all wetland values in the planning of other agencies.

All programs contribute to achieving the broad objective of identifying and conserving unique, representative or endangered physical, biological, cultural and historical features of the province. Areas of natural and scientific interest will be recognized in the management of the ministry's various programs.

D: energy

1. POLICY STATEMENT

The ministry will undertake its activities so as to contribute to provincial energy objectives.

2. DISCUSSION

The provincial energy program targets to which the ministry will contribute are to supply by 1995

a minimum of 22.5 percent of Ontario's energy from non-renewable (oil, gas, lignite, peat, uranium) resources within the province (1978 amount was 10 percent); and to supply by 1995 at least 15 percent of Ontario's energy from renewable and recoverable resources including hydraulic resources (1978 amount was 13 percent).

Energy production activities which may have impacts on land use include use of hydraulic power, use of forest resources and extraction of peat and other fuels. The Aylmer District will undertake its resource management programs so as to contribute to provincial energy objectives.

The Ontario government's position on energy is outlined in the report, *Energy Security of the Eighties* issued in 1979 and in *Ontario Energy Review*, second edition, issued March 1981.

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3. STRATEGY

- ensure that energy potential is considered before a permanent commitment is made to uses which exclude energy production;
- recognize wood as an acceptable energy alternative;
- install solar power heating systems in selected facilities;
- assess the opportunities for heating other institutions with wood; and
- implement a comprehensive ministry energy action plan.

A: forestry

1. OBJECTIVE

The objective for forestry in southern Ontario is to provide for an optimum contribution to the economy by forest-based industries consistent with sound environmental practices and to provide for other uses of the forest.

2. TARGET

The forestry targets in Aylmer District are:

- to produce an annual continuous supply of 154,000 cubic metres (5,450,000 cubic feet) of net merchantable wood for industrial purposes by the year 2020, while maintaining the present diversity of forest products; and
- to make the maximum contribution from forestry production to the achievement of the provincial energy target.

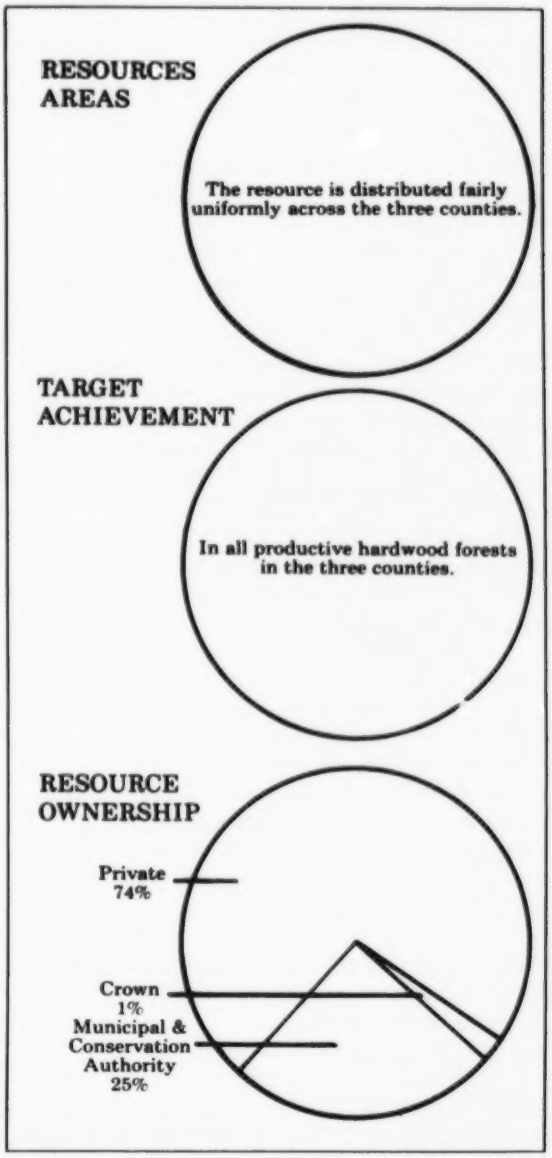
3. DISCUSSION

The productive forested land in Aylmer District is 11 percent of the land base, or 70,016 hectares. It consists of upland hardwoods (76%), lowland hardwoods (18%), plantations (4%) and pioneer hardwoods and natural conifers (2%). Of the productive forest under active management, 74 percent is under *Woodland Improvement Act* agreements, 25 percent is under forestry agreements with local municipalities and conservation authorities and 1 percent is Crown land. Of the 25 percent shared by the conservation authorities and municipalities, the former provides the larger portion of the percentage.

According to the sawmill return data for the period from 1974 to 1979, the annual cut of net merchantable timber has averaged 36,179 cubic metres/year (1,280,000 cubic feet/year), ranging from 19,785 cubic metres/year (700,000 feet/year) to 53,703 cubic metres/year (1,900,000 cubic feet/year).

It is estimated that the current annual cut which could be sustained (net merchantable wood) in Aylmer District is 240,000 cubic

FIGURE 1 FORESTRY TARGET


RESOURCES AREAS
The resource is distributed fairly uniformly across the three counties.
TARGET ACHIEVEMENT
In all productive hardwood forests in the three counties.
RESOURCE OWNERSHIP
Private 74%
Crown 1%
Municipal & Conservation Authority 25%

metres (8,480,000 cubic feet). With continued management, the allowable cut from existing productive forests, could be increased to 303,000 cubic metres (10,590,000 cubic feet).

Estimates of both the current and potential annual production from existing productive forests are in excess of the target (Table 1). The target is seemingly achievable given estimates of potential. However, there are several factors which influence the productive forest base as well as demand which influence the ministry's ability to achieve the target.

TABLE 1 FORESTRY INFORMATION

Estimated Existing Level of Net Merchantable Wood Production (cubic metres/year)	Potential Level of Net Merchantable Wood Production (cubic metres/year)	Target (Net Merchantable Wood Production) (cubic metres/year)
240,000	303,000	154,000

As indicated in Part II, Strategy Summarized, supply trends are downward through time because of the general decline in the amount of productive forest due to urban and rural development, land clearing and utility corridor development.

The productive forest area in Aylmer District has declined by 18 percent since 1955. Of the remaining productive forest, 14 percent or 9,720 hectares (23,997 acres) is under active management. Not only has the size of productive forest areas decreased, but the productive capacity and timber quality of the average woodlot has been greatly reduced by a general lack of management, overcutting and little replanting.

Demand trends, on the other hand, remain relatively constant or level due to the large number of small producers. Although world wide demand may be increasing as the economy improves, the small localized nature of the industry will maintain a constant demand. In this part of southern Ontario, the resource base is probably not large enough to attract very large industrial users.

Other factors influencing the maintenance of the present forest production and, therefore, target achievement are:

- high land ownership turnover rates resulting in lessened commitment for managing the forest resource;
- slow growth of the more desirable hardwoods;
- a large proportion of the forested areas containing poor quality timber;
- an uneven district-wide age-class distribution of trees;
- present under-utilization of hardwoods by the forest industry;
- technical harvesting difficulties for complete hardwood utilization;
- lack of markets to generate higher hardwood utilization;
- lack of adequate incentives for landowners in forest management;
- insufficient utilization of abandoned lands which are suitable for forest management;
- presence of a number of neglected forests;
- poor management of many existing forests;
- municipal planning documents inadequately addressing forest resources in their policies; and
- right-of-way for roads, gas lines and power lines, disrupting portions of many forests.

As a means of ensuring the availability of adequate forest resources, it is often necessary to produce more than the target would suggest. This is necessary to account for those factors already identified as well as other economic, social and planning constraints which face the forest industry.

Woodlot clearing continues to reduce the existing potential of the forest to produce wood products. Achievement of the forest production target asumes the present rate of removal of productive forest will decrease.

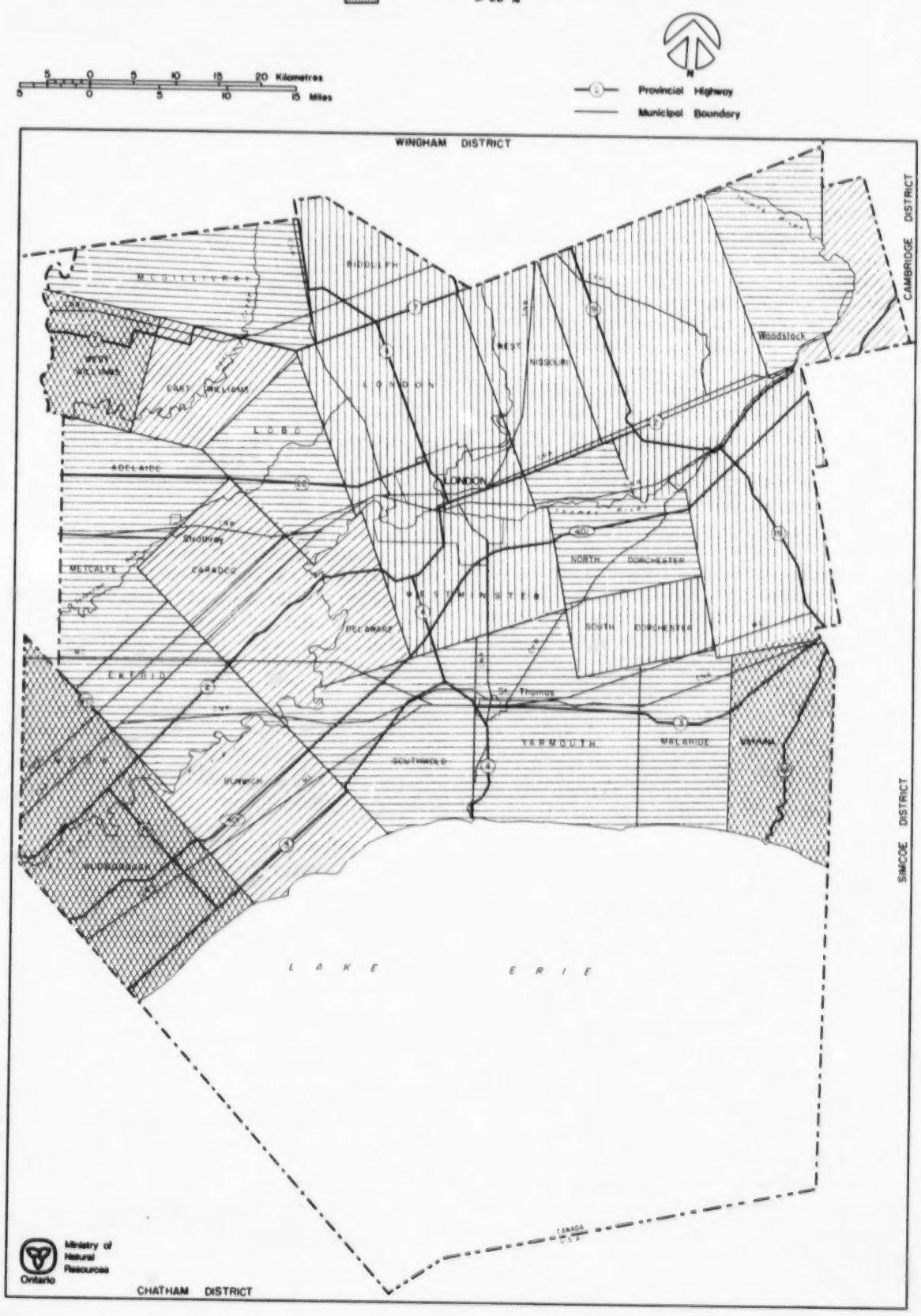
Although the volume target can be achieved without intensive management of every woodlot, management efforts are necessary to ensure continued and improved supplies of high quality heavy hardwoods and to help offset current overharvesting.

4. STRATEGY

- The emphasis will be on the management of

AYLMER DISTRICT
FOREST RESOURCES PROGRAM

Map 3



existing productive forests, the *Woodland Improvement Act* and agreement forests.

- Forest production will be increased in existing upland hardwood forests in Aylmer District.
- Planting of plantations of white pine, red pine and black walnut will be encouraged on abandoned farm land.
- Landowners will be encouraged to maintain existing high quality, commercially productive private woodlots.

Map 3 identifies the distribution of existing forest cover.

5. INTEGRATION

The forest resources program will consider the objectives of other ministry programs.

Program integration statements are outlined in Part V, Application, 2. Program Integration.

B: mineral aggregate

1. OBJECTIVE

The objective for mineral aggregate production in southern Ontario is to meet anticipated future demand with minimal disturbance to natural and cultural resources and the social environment.

2. TARGET

The target for mineral aggregate production in Aylmer District is to ensure a total cumulative supply of 192.0 million tonnes (211.6 million tons) for the period 1982 to 2000.

3. DISCUSSION

In 1981 the annual mineral aggregate production was 10.0 million tonnes (11,025,000 tons), including 7.0 million tonnes (7,700,000 tons) of sand and gravel and 3.0 million tonnes (3,300,000 tons) of crushed stone. In addition, 150,000 tonnes (166,000 tons) of clay were produced. The sand and gravel is used mainly in the construction industry, while the aggregates from stone deposits are used in lime flux and cement manufacturing. Approximately one percent of all quarried stone is used for the production of crushed stone for industrial purposes and the manufacturer of asphalt and concrete products. Clay and shale from local deposits are utilized in the clay products industry for making drain tile and cement.

The potential supply of high potential mineral aggregate from licenced pits and quarries is 900.0 million tonnes (990,000,000 tons). This includes 300.0 million tonnes (330,000,000 tons) from licenced sand and gravel deposit areas and 600.0 million tonnes (660,000,000 tons) from licenced stone quarry areas.

The potential in other high potential resource areas is 1,976.0 million tonnes (2,178,300,000 tons). This includes 1,287.0 million tonnes (1,418,300,000 tons) of sand and gravel, and 689.0 million tonnes (760,000,000 tons) of stone.

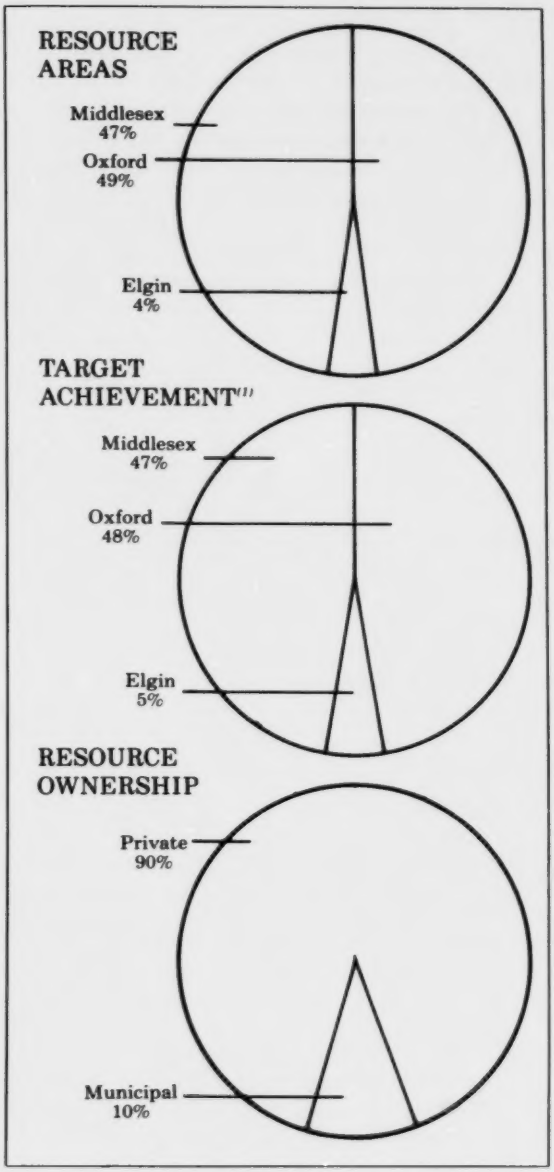
The total potential in licenced and other high potential resource areas is 2,876.0 million tonnes (3,170,300,000 tons) of mineral aggregates.

Table 2 summarizes the mineral aggregate information.

Future use or level of production from existing or proposed licenced mineral aggregate operations is influenced by factors such as:

- land use conflicts/competing land uses;
- resource sterilization;
- inadequate municipal plan recognition;
- frequent local opposition;
- present use of the land;
- lack of current data;
- present and future demand unpredictability;
- environmental impacts;

FIGURE 2 MINERAL AGGREGATE TARGET



(1) The calculation of target achievement distribution is based on 1981 production data.

- historical problems in areas which have only recently been designated, for example, lack of rehabilitation;
- municipal fears of provincial interference in local autonomy;
- lack of public education; and
- increasing transportation costs.

As a means of ensuring the protection and availability of adequate resources, it is therefore often necessary to seek to protect many times more aggregate than the target would suggest. This is necessary to account for the geological, economic, social and planning constraints which confront the aggregate mining industry. Furthermore, it is necessary because aggregate is a non-renewable resource and demand will continue beyond the year 2000. The mineral aggregate target represents the total cumulative supply for the period 1982 to 2000, which should be protected.

However, the ministry is not seeking to maintain large areas as aggregate extraction. Rather, it prefers designations such as agriculture and forestry, which provide for ongoing uses without closing the door on the future. It does, however, wish to discourage designations such as estate residential which limit future options. Protection does not necessarily mean extraction.

The district's aggregate production is almost entirely on private land. Some farmland may be temporarily removed from production. Compared to the total productive agricultural base the potential impact of extractive operations outside licenced pits is minimal.

Subject to certain constraints, such as height of the water table, a pit or quarry can be rehabilitated to almost any desired after-use such as agriculture, recreation, housing, forestry, commercial or industrial uses.

Supply and demand trends are shown in Part II, Guidelines Summarized.

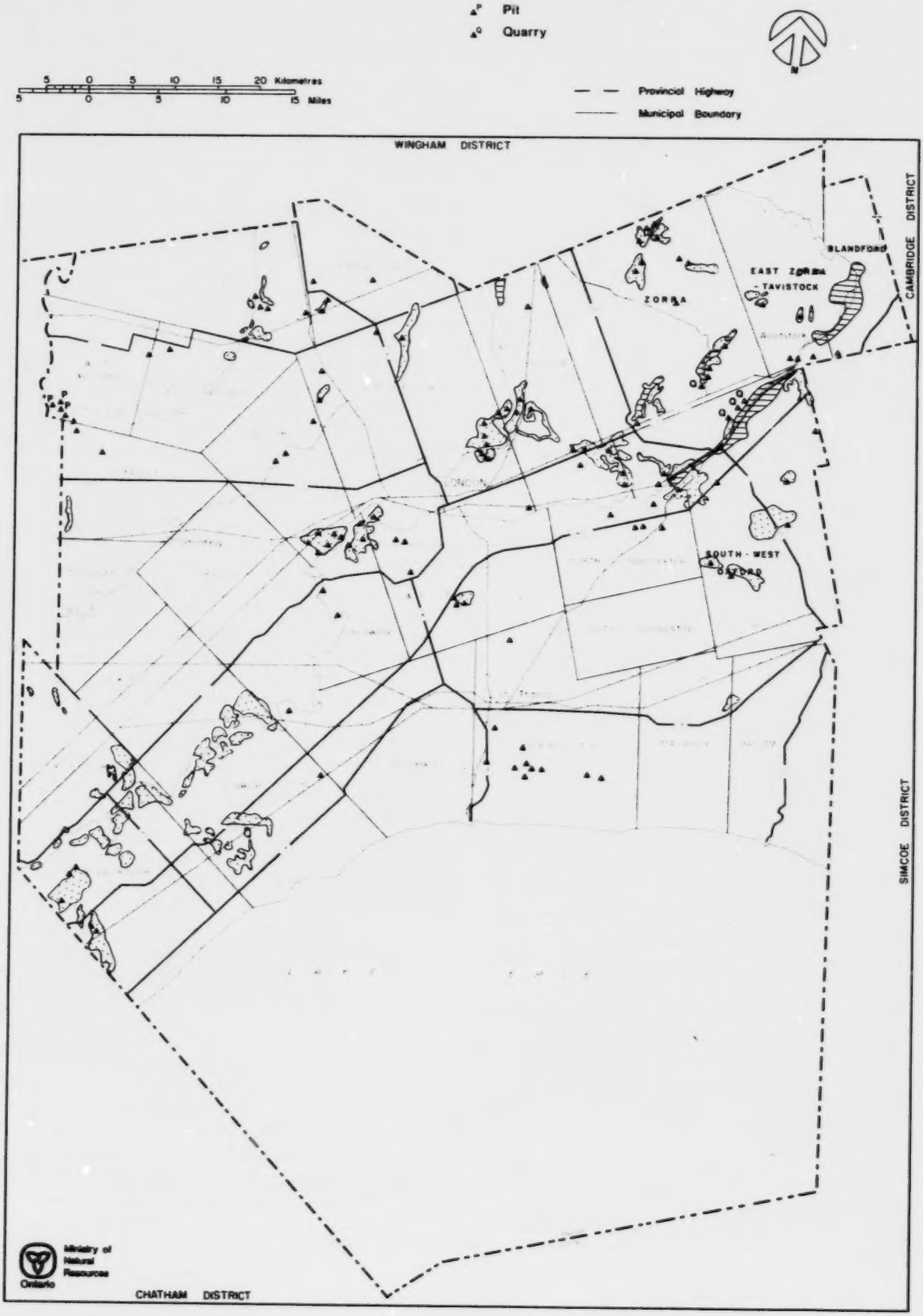
TABLE 2 MINERAL AGGREGATE INFORMATION

Current Annual[1] Production (1981) (000 tonnes)	Licenced Areas[2] Potential (1982) (000 tonnes)	Potential in[2] Other High Potential Resource Areas (000 tonnes)	Total[2] Potential (000 tonnes)	Target (000 tonnes)
10,000	900,000	1,976,000	2,876,000	192,000

(1) Current annual production figures include wayside pit production.
(2) Urban area constraints are considered in the estimates of potentials. Wayside pits are excluded from the calculated potential in licenced areas.

AYLMER DISTRICT
MINERAL AGGREGATE RESOURCES PROGRAM

Map 4



4. STRATEGY

- The ministry will seek to maintain the resource potential of high potential mineral aggregate resource areas from incompatible uses.
- All existing licenced pits and quarries will be encouraged to continue current extraction operations until the reserves are totally worked out to ensure maximum resource recovery.
- Exploration for new resources will be encouraged.

Map 4 illustrates the existing licenced pits and quarries and identifies the areas with high potential for mineral aggregate in Aylmer District. The ministry is not seeking absolute protection of all of the mapped areas. It is within these general areas that the ministry will seek protection of adequate resources.

5. INTEGRATION

The mineral aggregates program will consider the objectives of other ministry programs.

Program integration statements are outlined in Part V, Application, 2. Program Integration.

C: minerals and fossil fuels

1. OBJECTIVE

The objective for minerals and fossil fuels in southern Ontario is to provide for a strengthening of the contribution of these resources to provincial economic development and energy production.

2. TARGETS

The target for mineral resources in Aylmer District is to keep open as much land as possible for mineral exploration and development.

The target for oil and gas in Aylmer District is to encourage as much exploration and production as possible to maximize the contribution to the provincial energy target.

Specific mineral and fossil fuel production targets cannot be established because of the difficulties in predicting market trends and assessing resource potential and because actual production is primarily a responsibility of the private sector.

3. DISCUSSION

In 1980, approximately 9,300 10^3m^3 (328,370 million Mcf) of natural gas was produced in Aylmer

FIGURE 3 FOSSIL FUELS CURRENT PRODUCTION CONTRIBUTION

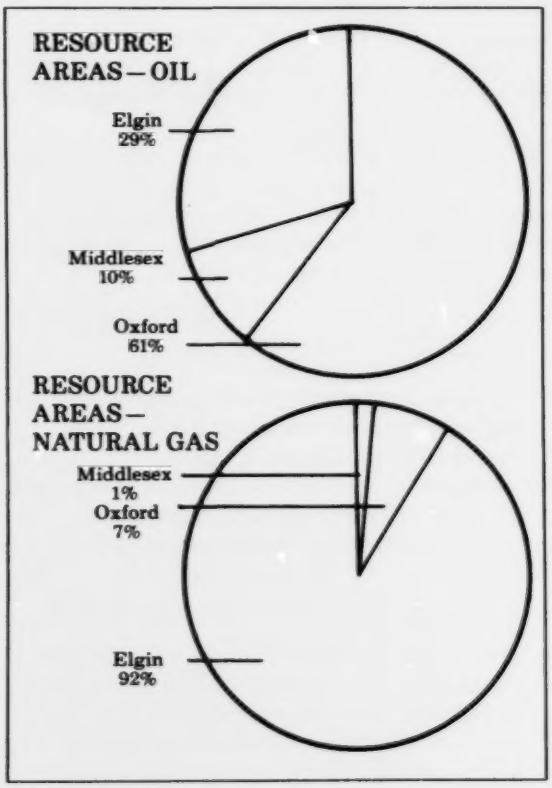


TABLE 3 FOSSIL FUELS INFORMATION

Fossil Fuels	Current Production (1980)	Known Remaining Recoverable Reserves (1980)
Oil	36,300 m^3 (230,000 bbls)	690,206 m^3 (4,341,265 bbls)
Natural Gas	9,300 10^3m^3 (328,370 million Mcf)	642,810 10^3m^3 (22,691,683 million Mcf)

District. This production came from a total of six active onshore and offshore natural gas pools.

In 1980, oil production in Aylmer District totalled approximately 36,300 m^3 (230,000 bbls). This production came from five active oil pools. There are a total of twelve abandoned oil and natural gas fields, which still contain considerable petroleum resources due to early primitive production techniques and premature abandonment.

Based on 1980 production figures, the known remaining recoverable reserves in Aylmer District are 690,206 m^3 (4,341,265 bbls) of oil and 642,810 10^3m^3 (22,691,683 million Mcf) of natural gas. These estimates are tentative and are thought to be low since advances in technology have resulted in more petroleum being extractable than was previously thought possible.

During 1978, Ontario produced less than 0.1 percent of the provincial consumption of oil and about 0.2 percent of its natural gas consumption.

Table 3 summarizes the fossil fuels program.

The supply and demand trends for fossil fuels are shown in Part II, Guidelines Summarized. The supply refers to the total resource availability which is declining and non-renewable. The demand trend, however, is on the increase.

4. STRATEGY

- Existing oil and natural gas operations will be encouraged to provide a continuous contribution to provincial energy needs.
- The ministry will seek to maintain the resource potential of known oil and gas pools and reserve areas and from incompatible uses.
- Exploration for new oil and natural gas reserves and other mineral resources will be encouraged.
- The Ministry of Natural Resources will abide by the existing International Agreement on oil and natural gas extraction in Lake Erie. Any future production of oil and natural gas in Lake Erie will require consideration of the impacts on the environment.

Map 5 identifies the known oil and natural gas pool locations in Aylmer District.

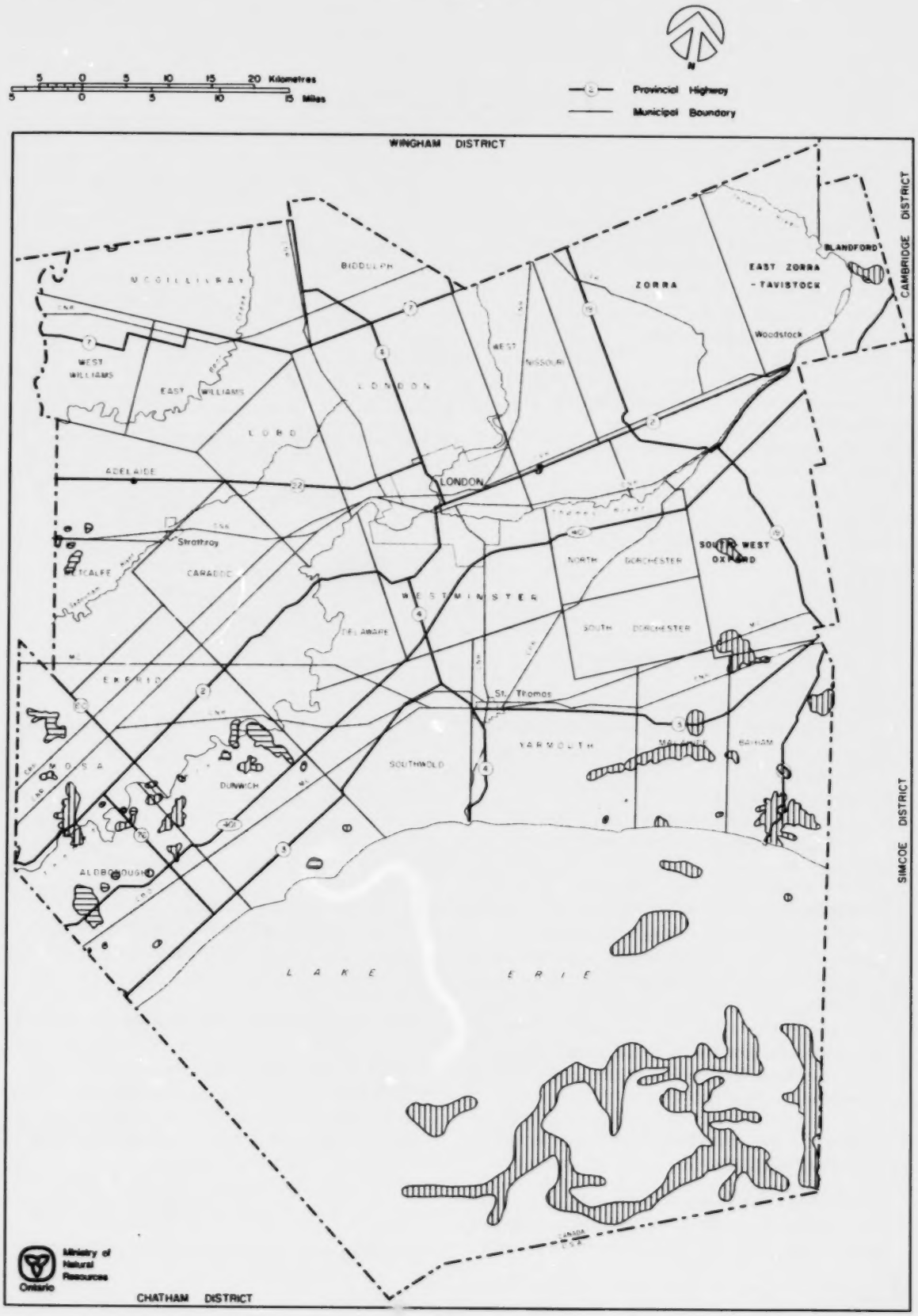
5. INTEGRATION

Exploration for the production of oil and natural gas will consider the objectives of other ministry programs.

Program integration statements are outlined in Part V, Application, 2. Program Integration.

AYLMER DISTRICT
FOSSIL FUELS PROGRAM

Map 5



D: fisheries

1. OBJECTIVE

The objective for fisheries management in southern Ontario is to provide optimum recreation and economic benefits consistent with the maintenance of healthy fish communities.

More specific objectives are:
Sport Fishing
- to meet demand within the limits of a wisely managed and rehabilitated resource;

Commercial Fishing
- to maintain a viable industry;

Bait Fishing
- to maintain current production; and

Provincially Rare and Endangered Species
- to prevent the extinction of any native species.

2. TARGETS

The targets in Aylmer District are:
Sport Fishing
- to provide 75,300 recreation opportunities by the year 2000. This will require the production of 46,000 kilograms (101,460 pounds) of fish annually;

Commercial Fishing
- to provide 1,109,000 kilograms (2,444,500 pounds) of fish annually by the year 2000;

Bait Fishing
- to provide 20,000 dozen fish annually from natural sources. This production is in addition to the commercial fishing target; and

Provincially Rare and Endangered Species
- to ensure no native fish species become extinct.

All of the commercial fish resource is in Lake Erie. Therefore, 100 percent of the target will be achieved in Lake Erie.

3. DISCUSSION

Requirements for status Indians with treaty rights are provided for in the sport and commercial fish figures. The emphasis in fisheries management in Aylmer District will be on achieving fisheries objectives and targets from naturally occurring fish stocks.

Targets are based on the best available information.

Tables 4, 5 and 6 summarize the fisheries information.

FIGURE 4 SPORT FISH TARGET

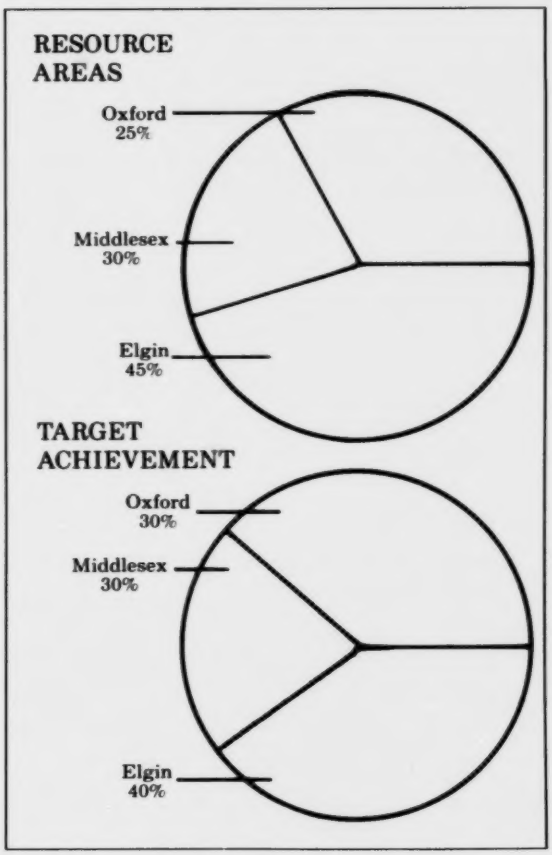
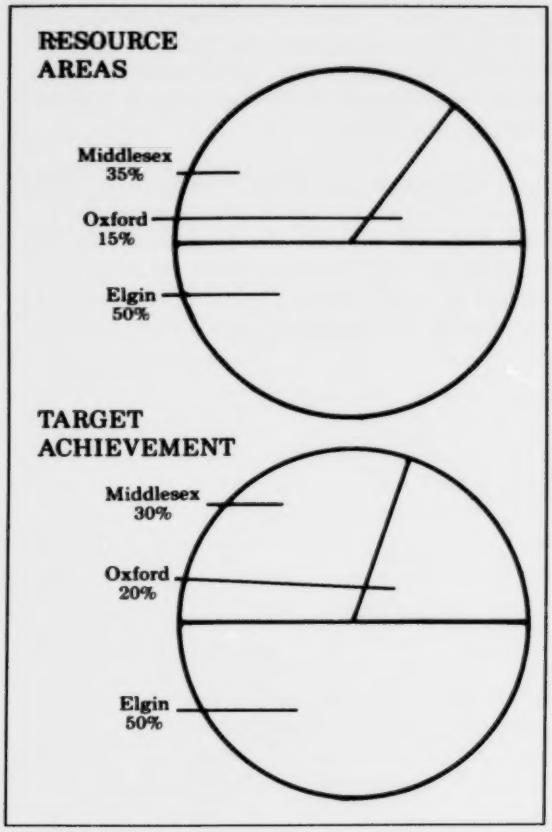


FIGURE 5 BAIT FISH TARGET



a. Sport Fishing

TABLE 4 SPORT FISHING INFORMATION[1]

Location	Present Use (in opportunities)	Potential Supply of Recreation with Increased Management (in opportunities)	Target (in opportunities)
Inland Waters	37,500	60,300	60,300
Lake Erie	13,000	15,000	15,000
Total	50,500	75,300	75,300

(1) Dip netting for smelt is not included in the sport fishing information because of insufficient harvest information.

The present amount of sport fishing recreation in Aylmer District is 37,500 opportunities per annum from inland waters and 13,000 opportunities per annum from Lake Erie, for a total of 50,500 opportunities per annum. The potential supply of recreation is 60,300 opportunities per annum from inland waters and 15,000 opportunities per annum from Lake Erie, for a total potential supply of 75,300 opportunities per annum.

To meet the sport fishing target, efforts must be directed towards maintenance and rehabilitation of inland waters. These waters experience pressures of:

- deteriorating water quality due to poor land use and waste disposal practices;
- loss of spawning beds to dredging, channeling and changing land uses; insufficient existing suitable habitat to provide sufficient population levels; and
- fishing pressures.

These factors must be addressed if targets are to be achieved.

Future trends for sport fishing indicate increase in demand and the full potential of the district has been targeted. The major emphasis for sport fishing management will be on inland waters.

Of particular concern are cold water streams. Ultimately the angler demand across southern Ontario for cold water fish will exceed the capacity to produce. That situation currently exists in some areas. To mitigate this situation, cold water fisheries resources have to be protected and where necessary, rehabilitated.

Currently, American states on Lake Erie are stocking salmon which provide angling opportunities to Ontario fishermen. These opportunities have not been included in the district target because the ministry lake management is based upon rehabilitation of self-regenerating stocks of indigenous species.

Although the emphasis will be on inland streams, it is anticipated that sport fishing demand on Lake Erie will increase. The exact determination of proportions of allowable yields for the sport fishery for Lake Erie will be recommended to the Minister by the ministry's lake management committees.

b. Commercial Fishing

TABLE 5 COMMERCIAL FISHING INFORMATION

	Present Harvest	Potential	Target
Total (entirely from Lake Erie)	1,170,000 kg	1,109,000 kg	1,109,000 kg

The average annual commercial fish harvest from Lake Erie during the ten years 1970 to 1979 was 1,170,000 kilograms (2,579,365 pounds). Commercial fish harvested include yellow perch, yellow pickerel, smelt, freshwater drum, white bass and catfish with yellow perch comprising about 77 percent of the total.

The past performance of the fisheries of Lake Erie have been reviewed and the reported harvest levels are being used to determine the mean annual allowable yield of those species that are important to the commercial fishery. The potential sustainable annual yield of commercial fish for the Aylmer District portion of Lake Erie is considered to be 1,109,000 kilograms (2,444,500 pounds).

The target for commercial fishing is equivalent to potential production and represents a five percent reduction from the ten year average harvest.

The ministry intends to rehabilitate the fish communities of the Ontario portion of the Great Lakes. Rehabilitation will result in an increase in the abundance of more desirable fish species, such as perch and yellow pickerel in Lake Erie but a decrease in the abundance of less desirable species, many of which are harvested commercially. Although a decrease in the total commercial harvest is proposed, a greater portion of the catch may consist of more desirable and valuable species. This should, to some extent, offset the lowered return to commercial fishermen from reductions in harvest volumes.

The exact determination of proportions of allowable yields for the commercial fishery by lake will be recommended to the ministry by the Minister's lake management committees.

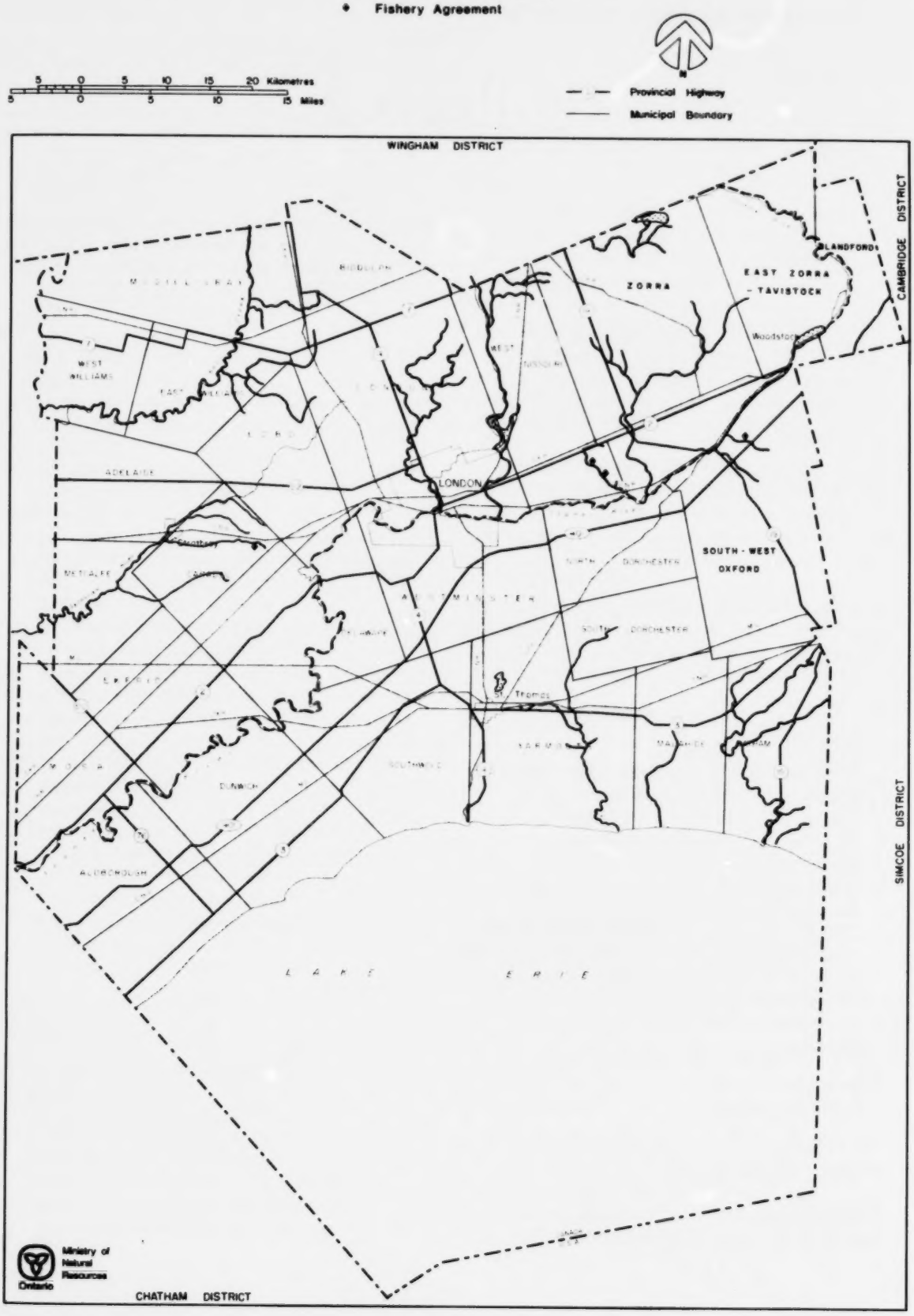
Commercial harvests will not necessarily consist of specific proportions of the sustainable yield of each fish species. In most instances, commercial fishermen will direct their efforts towards harvesting species that cannot be caught by angling or are not sought by sport fishermen, or stock which are not accessible to anglers because they are found far from shore. As this is already the case with existing commercial fisheries in Aylmer District, no dramatic changes from the existing relative importance of commercial fishing to the area are foreseen to the year 2000.

It is important to note that since the *Co-ordinated Program Strategy* was prepared, refined data and improved predictive modelling have resulted in revisions of the assigned targets for fishing. Further changes may result in the future as more information and understanding of the resource is developed.

The allocation of the allowable harvest of the fisheries resource among user groups will be based on an objective, careful examination of all relevant biological social and economic factors to ensure that the optimum benefits accrue to the residents of Ontario. It is the responsibility of both anglers and commercial fishermen to participate in co-operative management and

AYLMER DISTRICT
FISHERIES PROGRAM

Map 6



adhere to their catch limits, quotas and the regulations to protect the fish stocks and guarantee their perpetuation for the future.

To further protect the fisheries resources, the ministry is working with American jurisdications to ensure that balanced harvests of fish stocks are assured and management strategies are compatible.

c. Bait Fish

TABLE 6 BAIT FISH INFORMATION

	Present Harvest	Total Potential	Total Target
Lake Erie	unknown	24,000 dozen (from all sources)	20,000 dozen (from all sources)
Inland Waters	20,000 dozen		

The present harvest of bait fish per annum from inland waters is 20,000 dozen. The present harvest of bait fish per annum from Lake Erie is unknown at present. The potential harvest of bait fish per annum in Aylmer District is 24,000 dozen.

In the case of bait fish, the potential exceeds present harvest. The potential reflects an amount which could be produced assuming the optimum conditions for fish production and negating the factors listed as affecting supply.

Bait fish potential of inland waters exceeds present use. Although the target provides for full use of the potential, its achievement may not occur owing to private land access restrictions.

4. STRATEGY

- The sport fishing target will be met from inland waters, especially those shown on Map 6.
- The commercial fish target will be met exclusively from Lake Erie.
- The current bait fish target will be met from both Lake Erie and inland waters.
- The identification, protection and rehabilitation of significant inland lakes, reservoirs, cold and warm water streams and headwaters will be a fisheries management priority. Private landowners will be encouraged to provide public access for sport fishing.

5. INTEGRATION

The fisheries program will consider the objectives of other ministry programs.

Program integration statements are outlined in Part V, Application, 2. Program Integration.

E: wildlife

1. OBJECTIVE

The objective for wildlife management in southern Ontario is to provide optimum social and economic benefits from wildlife recreation and fur harvest consistent with the maintenance of healthy wildlife population.

More specific objectives are:
Hunting
- to provide opportunities sufficient to maintain the present rate of participation and quality of hunting by residents;
- to maintain the contribution to the economy of hunting by non-residents;

Trapping
- to sustain the maximum yield from wild furbearer populations while maintaining the present diversity of fur types; and

Other Uses
- to prevent additional species from becoming endangered or threatened;
- to improve the status of existing endangered or threatened species with the objective of removing them from the endangered species list; and
- to maintain populations of all wildlife species (both non-game and game) at levels sufficient to:
  - provide opportunities for recreational enjoyment, aesthetic appreciation, scientific investigation, and educational uses;
  - provide benefits from tourism;
  - ensure environmental quality and ecosystem integrity; and
  - ensure the safety of the public.

2. TARGETS

The targets in Aylmer District are:
Hunting
- to provide by the year 2000, 105,000 opportunities of hunting recreation per annum, including 4000 opportunities of big game hunting (white-tailed deer), 76,000 opportunities of small game hunting and 25,000 opportunities of waterfowl hunting;

Trapping
- to manage populations of wild furbearers such that an average harvest of 20,000 pelts can be achieved by the year 2000 while maintaining present species diversity; and

Other Uses
- to ensure no native wildlife species becomes extinct. No specific targets have been quantified for wildlife appreciation because of the difficulty of measuring the activity and assessing the influence of management actions. Viewing targets will be defined through ongoing policy development and will be incorporated into the district guidelines at the appropriate opportunity.

3. DISCUSSION

In Aylmer District, the total current annual supply of hunting opportunities is 94,000, consisting of 4,000 for big game, 70,000 for small game and 20,000 for waterfowl. Current trapping results in a production of 20,000 pelts per annum. The potential supply of hunting opportunities with increased management are 5,000 for big game, 94,000 for small game and 36,000 for waterfowl. Potential fur production from trapping is estimated to be 20,000 pelts.

The summary of wildlife information is in Table 7 on page 31.

a. Big Game Hunting

The only big game species present in Aylmer District is white-tailed deer. The population is estimated to exceed 2,500 deer and is increasing as a result of improving habitat.

The target for big game opportunities for hunting equals the current supply being provided in Aylmer District. The target is achievable.

b. Small Game Hunting

A variety of small game species are harvested throughout Aylmer District. These include pheasant, ruffed grouse, Hungarian partridge, woodcock, cottontail rabbits, European hare, fox

FIGURE 6 BIG GAME TARGET

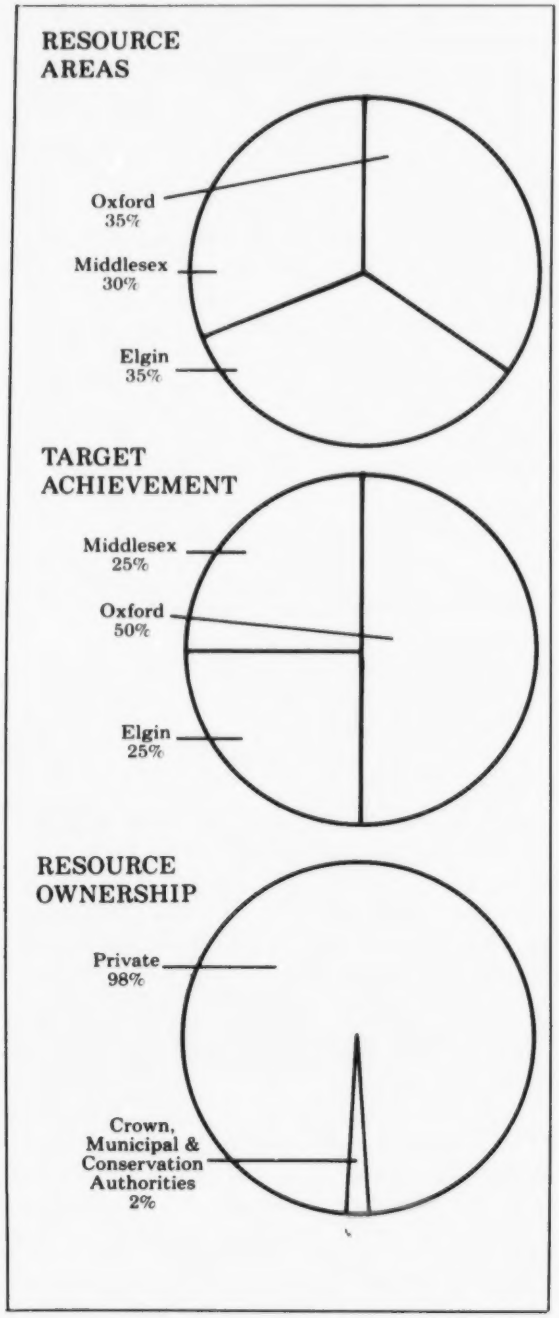
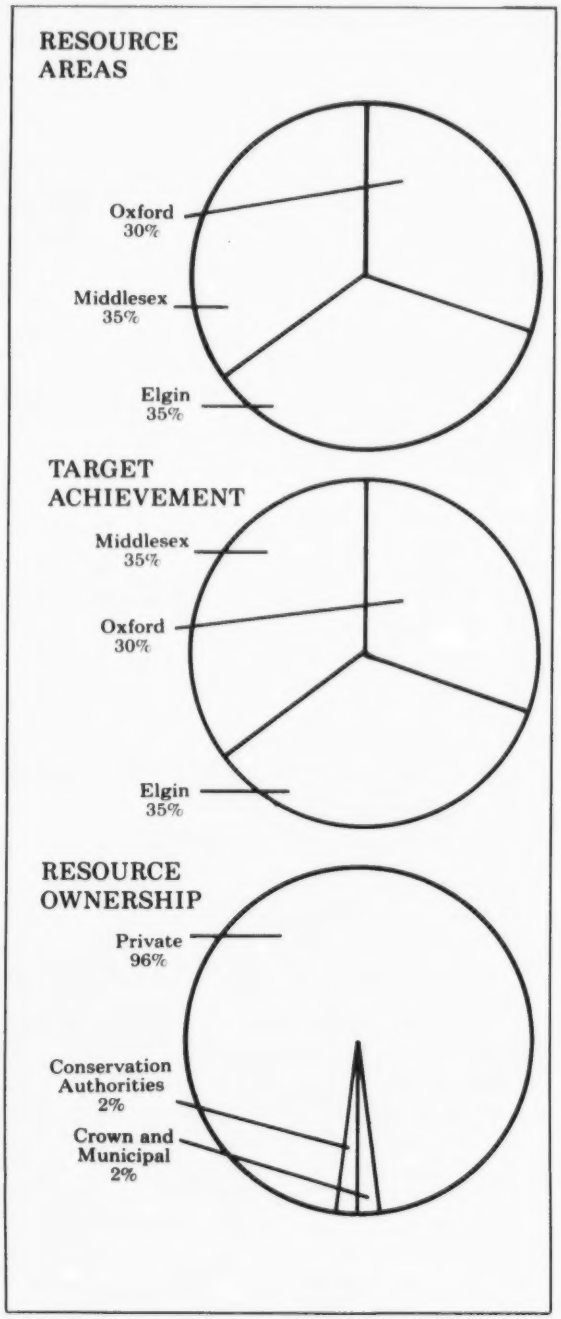


FIGURE 7 SMALL GAME TARGET



and raccoon. Although Crown land offers some opportunities for small game hunting the bulk of small game opportunities are located on private land.

Supply and demand trends for small game hunting vary through time because of the nature of the resource and the many factors influencing it. Presently, the supply trend is increasing slightly, as indicated in Part II, Guidelines Summarized. The main reason for predicting an upward trend is the small area of habitat required for small game species. Windbreak programs, changes in rural land ownership to urban residents who wish to retain habitat for aesthetic reasons, soil conservation practices (less fall ploughing) and the present trend in the agricultural industry (marginal land not being farmed, changes from cash crops to grass and hay), all contributed to providing suitable habitat. Over the next 20 years the trend in supply could dramatically change as small game

FIGURE 8 WATERFOWL TARGET

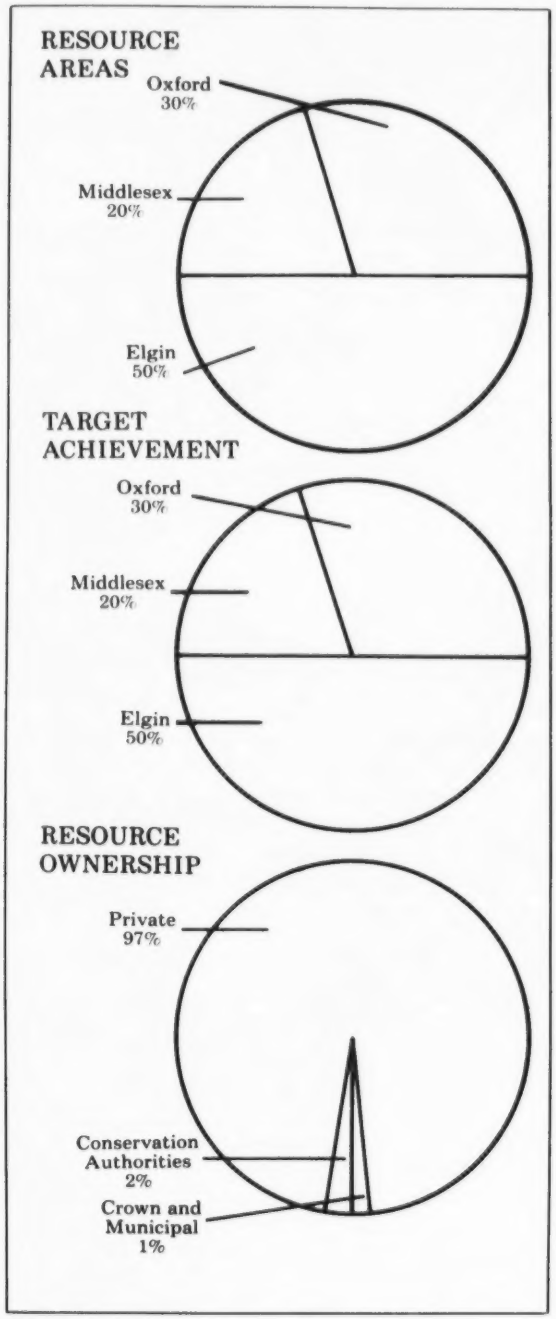
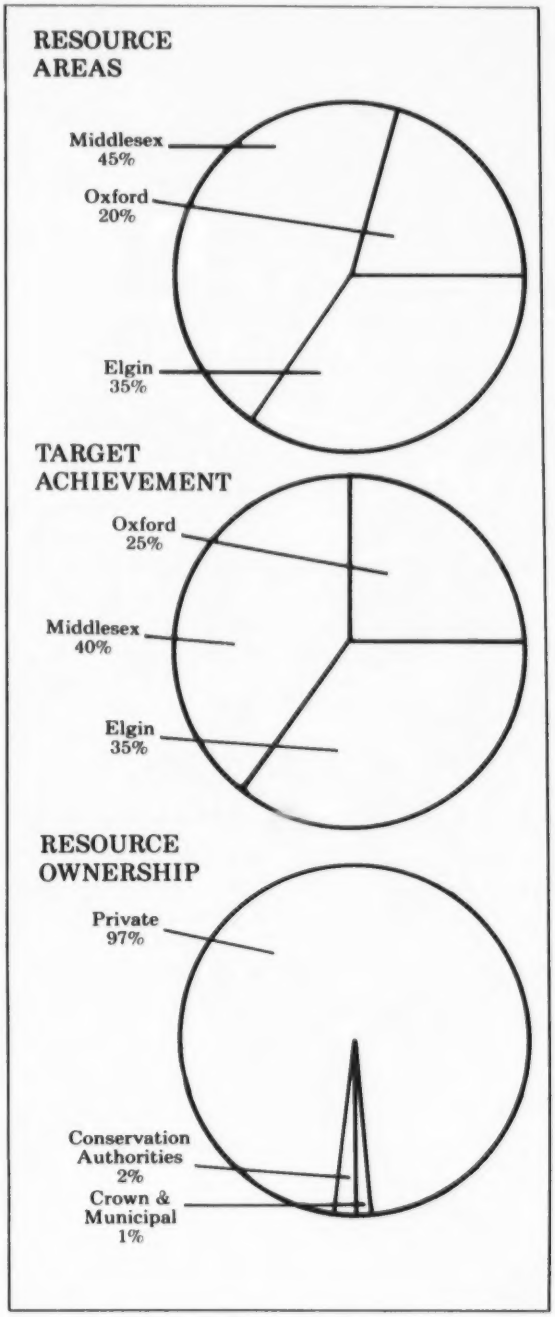


FIGURE 9 FUR HARVEST TARGET



species populations fluctuate in relation to the availability of food, water and cover and the fluctuation in predator populations.

The target for small game opportunities is slightly in excess of present use reflecting the assumption that present participation will continue. Considering the factors affecting population size fluctuation, the target is achievable.

c. Waterfowl Hunting

The Aylmer District does not have significant areas for the production and harvest of waterfowl. Existing waterfowl habitat is small and sparsely scattered, serving as staging areas only during the spring and fall migration.

In 1979 and 1980, the hunters in the district experienced 20,000 waterfowl hunting opportunities. The harvest consisted of 90 percent ducks

AYLMER DISTRICT
WILDLIFE PROGRAM

Map 7

Note Most of the rural part of Aylmer District is important for small game and fur.

TABLE 7 WILDLIFE INFORMATION

Wildlife Activity	Present Supply Current Use	Potential Supply with Increased Management	Target
Big Game Hunting (opportunities)	4,000	5,000	4,000
Small Game Hunting (opportunities)	70,000	94,000	76,000
Waterfowl Hunting (opportunities)	20,000	36,000	25,000
Trapping (pelts)	20,000	20,000	20,000

and 10 percent geese.

The target, based as it is on present participation continuing into the future, provides for a slight increase in waterfowl hunting opportunities. The target can be achieved.

d. Trapping

The fur harvest consists of muskrat, raccoon, mink, coyote, weasel, skunk, squirrel, coloured fox and beaver. Approximately 60 percent of the harvest is muskrat and 37 percent is raccoon.

It is believed that the supply of furbearers will remain reasonably constant based on current habitat conditions, food and water supply, predator populations and harvest.

The target is considered achievable.

4. STRATEGY

- Wildlife habitat will be protected as much as possible to ensure healthy species populations. Harvest of wildlife by hunting and trapping will be regulated to ensure healthy species populations.
- Existing wildlife management areas and Crown land will be managed to contribute to target achievement.
- The ministry will emphasize and promote the importance of the role of the private landowner in providing suitable habitat and access to hunting and trapping opportunities.

Map 7 summarizes the wildlife program emphasis in Aylmer District.

5. INTEGRATION

The provision of wildlife recreation opportunities and the production of pelts will consider other ministry program objectives.

Specific integration statements are in Part V, Application, 2. Program Integration.

F: provincial parks

1. OBJECTIVE

The objectives of the provincial parks system in southern Ontario are:

Protection

- to protect provincially significant elements of the natural and cultural landscape of Ontario;

Heritage Appreciation

- to provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage of Ontario;

Recreation

- to provide provincial park outdoor recreation opportunities ranging from high intensity day use to overnight car camping; and

Tourism

- to provide Ontario's residents and out-of-province visitors with opportunities to discover and experience the distinctive regions of the province.

2. TARGETS

The targets for the provincial parks system in Aylmer District are:

Protection

- Earth Science to protect provincially significant, representative and special earth science features which contribute to the representation of the 35 geological environments of southern Ontario;
- Life Science to protect provincially significant life science features which contribute to the representation of each vegetative site type in the 26 site districts in southern Ontario; and
- Historical Resources to protect provincially significant landscape-related prehistorical and historical resources which contribute to representation of the fourteen themes of southern Ontario's history;

Heritage Appreciation

- to provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage of Aylmer District; and

Recreation and Tourism

- to provide annually, by the year 2000, the following recreation opportunities for residents and visitors to provincial parks in Aylmer District:

  Day Use

  - —452,900 swimming opportunities/ 2,231 metres of beach are required
  - —74,000 picnicking opportunities/301 picnic tables are required
  - —54,800 camping opportunities/235 campsites are required.

FIGURE 10 DISTRIBUTION AND OWNERSHIP OF SIGNIFICANT EARTH SCIENCE FEATURES

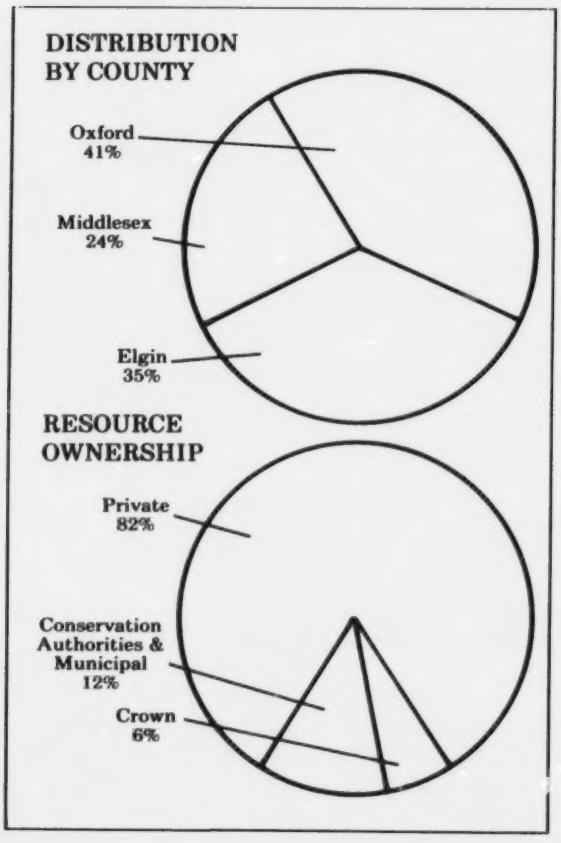


FIGURE 11 DISTRIBUTION AND OWNERSHIP OF SIGNIFICANT LIFE SCIENCE FEATURES

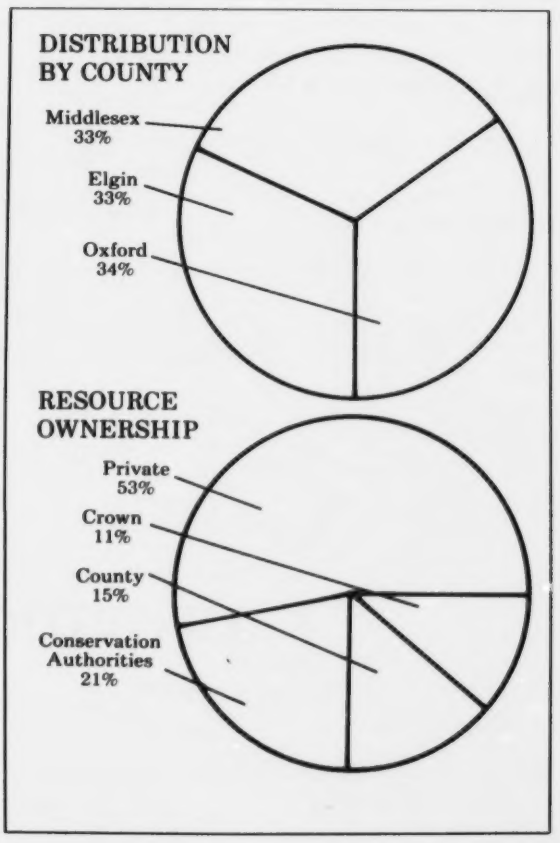
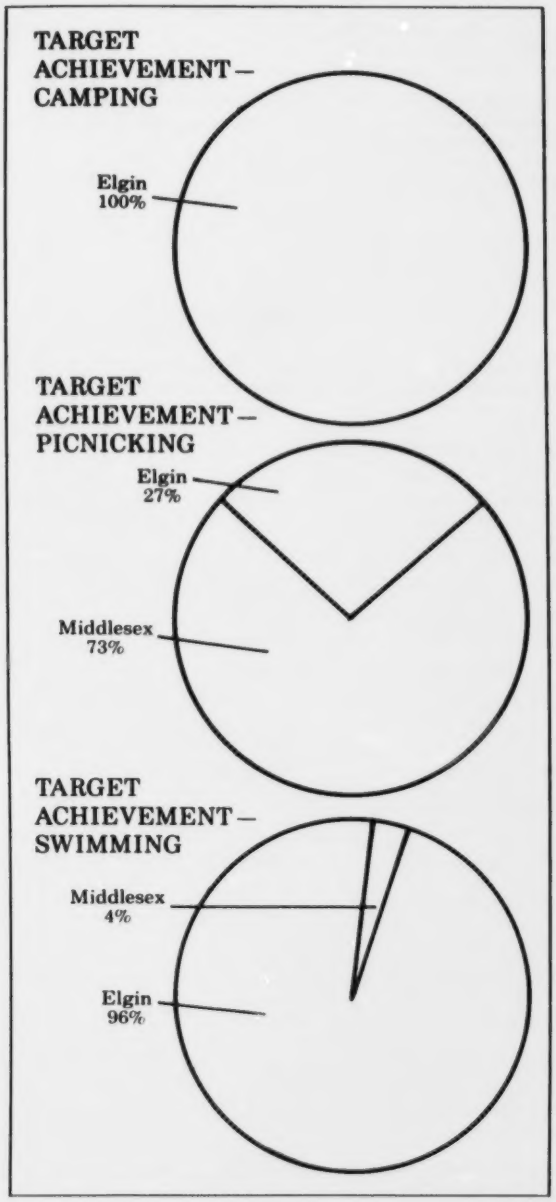


FIGURE 12 RECREATION TARGET



3. DISCUSSION

a. Protection

In Aylmer District, an assessment of all earth and/or life science areas of natural and scientific interest has been conducted to determine which are the most significant features relative to the protection targets. An assessment of historical resources has not been completed.

(i) Areas of natural and scientific interest

These are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

Areas of natural and scientific interest may vary in level of significance. The most significant may contribute to the achievement of the ministry's protection objective.

Where areas of natural and scientific interest occur on public lands managed by the ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values.

On private lands, through co-operation with others, attempts will be made to ensure that landowners are aware of significant features on their properties and seek the owner's co-operation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the ministry to acquire this land.

Areas of natural and scientific interest encourage the protection of additional areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

(ii) Most significant earth and life science features The features listed in Figures 13 and 14 are the significant earth and life science features in Aylmer District which can best contribute to representation of the geological environments and vegetative site types of southern Ontario.

Seventeen earth science and 16 life science features have been identified. Two of the earth science features are partially within the candidate park area at Komoka. This Komoka Park Reserve also contains one of the life science features. Trillium Woods Nature Reserve Provincial Park is the only existing park in Aylmer District that protects a significant life science feature.

The significant earth and life science features in Aylmer District cover quite a substantial area in total. Obviously, the purchase, by the Crown, of all or most of these areas would be neither practical or acceptable. In most cases, it is not necessary for these areas to be devoted exclusively to protection and heritage appreciation in order to achieve provincial parks' objectives. The achievement of the protection targets in Aylmer District, therefore, requires guidelines which will encourage the protection of these significant earth and life science features without undue infringement on existing land uses and property rights. It is also anticipated that the list of these features and the extent of the areas delineated as being required to protect the significant earth and life science features in

FIGURE 13 SIGNIFICANT EARTH SCIENCE FEATURES

Location	Earth Science Feature	Current Status
A. Crown Land		
Komoka-Lake Maumee	deposits of post glacial Lake Maumee II delta and post glacial Lake Whittlesey shoreline and deltaic deposits well exposed	Proposed Nature Reserve Zone in a candidate park
Kilworth-Lake Maumee	remnant shoreline buffer evidenced by the ice movements in the Erie Basin during the post Bruce stadial	Proposed Nature Reserve Zone in a candidate park
B. Conservation Authority/Municipal Lands (entirely or partially)		
Catfish Creek Till	most widespread and consistent till in southwestern Ontario	Catfish Creek Conservation Authority
Wildwood Silts	Lake Wisconsinan interstadial silt deposits formed in a local lake during the Erie Interstadial	Upper Thames River Conservation Authority
C. Private Land (entirely or partially)		
Steel Company of Canada Quarry	exposed bedrock of the Lucas Formation having moderately fossilized limestone and a sequence of limestone from the Columbus Formation	Private
Innerkip Quarry	a 6 metre section of lower Devonian Bois Blanc limestone overlying Upper Silurian Bass Islands dolostone is exposed	Private
Boy Scout Camp	contains the TYPE SECTION for the Wallacetown Formation, an interstadial sand and gravel deposit of Lake Wisconsinan age	Private
Malahide Formation	only southwestern Ontario exposure of a late Wisconsinan interstadial lacustrine sand and gravel deposit designated as a TYPE SECTION	Private
Bradtville Cottages	determined to be the TYPE LOCALITY for Middle Wisconsinan deposits, the glacial stage is exposed at this site of this deposit	Private
Thamesford Meltwater Channel	cut by the Erie ice lobe during the Nissouri stadial, a channel bound on both sides by terrace escarpments, it probably respresents a standstill position of the Huron ice lobe	Private
Brooksdale Glacial Complex	an abundance of kettles in the Zorra Till ground moraine, it is believed to mark an area of stagnant ice during the retreat of the Huron ice lobe	Private
Braemar Outwash	initially cut by the Erie ice lobe, and eroded by the Huron ice lobe, it forms a terrace escarpment in an east-west direction	Private
Blandford Stratified Drift	believed to be of inter-lobate origin formed between the Erie and Huron ice lobes, slopes caused by ice contact show the shape of the ice front	Private
Port Stanley Till	deposited by the Erie-Ontario ice lobe, it provides an example of ground till and surface till in front of the Guelph Drumlin field	Private
Glencoe-Lake Arkona	evidence of Mackonaw Interstadial ice retreat and re-advance from the Huron basin, deposits not well developed in Ontario	Private
Sparta-Lake Warren and Lake Whittelsey Beaches	beach ridges of deposited gravels, fine textured till with a pebbly and sandy drift at the moraine's core	Private
Elginfield Area	the Lucan moraine raised beaches overlies the Mitchell moraine at this site, the area exhibits a de-glaciation feature	Private

FIGURE 14 SIGNIFICANT LIFE SCIENCE FEATURES

Location	Vegetation — Landform Features Represented	Current Status
A. Crown Land		
Komoka Park Reserve	forested corridor along both sides of the Thames River, characterized by uplands north and south of the valley, floodplains and terraces, steep valley slopes and upland woodlots	Proposed nature reserve zone within a candidate park
Trillium Woods Nature Reserve Provincial Park	small upland woodlot with young to semi-mature deciduous forest, covering the slopes of two drumlins	Nature reserve class provincial park
B. Conservation Authority/Municipal Lands (entirely or partially)		
Springwater Forest (White's Bush)	primarily an exceptionally mature deciduous upland hardwood forest on a slightly undulating sand plain, a small pond completely surrounded by forest provides valley bottomlands and wetlands adding to the variety of habitats present	Catfish Creek Conservation Authority
Skunk's Misery	it is located on the Bothwell sand plain, an extensive tract of deciduous upland (forest) and lowland (swamp) forest, having highly diversified vegetation associations and plant and animal species	St. Clair Region Conservation Authority, Lower Thames Valley Conservation Authority and Middlesex County
Ausable River	a river valley with adjoining upland deciduous forest on till moraine and sand plain	Ausable-Bayfield Conservation Authority
Dorchester Swamp	an extensive flat wet wooded peaty swamp	Upper Thames River Conservation Authority
C. Private Land (entirely or partially)		
Thames River Floodplain	cross-section of forested river valley habitats (floodplains, floodplain and terraces and valley slopes) associated with adjoining uplands	Private
Talbot Creek	a well preserved, large natural area composed of representative upland forests and valley habitats	Private
Big Otter Creek	a large block of forested valley slopes, floodplains and terraces extending along a deeply incised valley	Private
Byron Woodlot (Warbler Woods)	a moderately rolling to hilly mesic upland forest	Private — partly owned by City of London
Unopened 12th Woodlots	two upland woodlots, flat to gently rolling mesic upland forest	Private — partly owned by Township
Lakeside Swamp	a kettle pond and uplands, with numerous smaller ponds between kame hills, very rolling kame moraine with wet depressions	Private
Trotter's Lake	kettle pond with varied marsh/bog complex	Private
Chesney Bog	a kettle sphagnum bog with no open water	Private
Elgin/Kent County Shoreline	steep shoreline bluffs with natural remaining habitats of wet woods, shrub thicket and old fields	Private (Elgin County portion)
Mud Lakes	diverse pond/bog complex containing a rare graminord bog	Private

question, will be refined over time.

(iii) Historical resources In Aylmer District, 3 of the 14 historical themes are represented in part within John. E. Pearce Provincial Park. The inventory of historical resources to meet the historical protection target is incomplete. Thus, those required to fulfill all the protection targets have not been completely identified.

Historical themes are groupings of historical activities of similar natures and times. They usually are represented by sites where specific relics are found or where historical events occurred.

In John E. Pearce Provincial Park, there is an archaeological site and it is part of a site of several known historical activities.

b. Heritage Appreciation

The target for heritage appreciation is achieved by providing opportunities for unstructured exploration and appreciation of features of Ontario's natural and cultural landscapes, and its significant earth and life science features. Such opportunities are best provided in large areas wherein representative samples of Ontario's variety of natural and cultural landscapes may be formed.

Presently, visitors to Trillium Woods, John E. Pearce and Iroquois Beach Provincial Parks are afforded the opportunity for unstructured exploration of these areas via trails and access roads. In some cases, information pamphlets or displays are available. At Iroquois Beach Provincial Park, special events related to that park's environment, and recreational activities compatible with that environment, are presented.

Apart from minimal heritage appreciation opportunities that can be provided at Trillium Woods Nature Reserve Provincial Park, the inland area of Aylmer District is lacking in heritage appreciation opportunities. Consequently, studies are underway to determine if an area representative of Aylmer's inland natural landscape exists which might contribute to achieving this target.

Other agencies, conservation authorities, private parks, municipal museums and areas of natural and scientific interest complement the ministry's heritage appreciation objective and target.

c. Recreation and Tourism

All of the existing provincial parks in Aylmer District provide opportunities for outdoor recreational activities, though the majority of the picnicking and swimming opportunities are provided at Iroquois Beach and Port Bruce Provincial Parks.

Iroquois Beach, Port Bruce and John E. Pearce Provincial Parks currently provide 467,900 opportunities for swimming (2,305 metres of beach) and 64,900 opportunities for picnicking (264 picnic tables). Only Iroquois Beach Provincial Park currently provides camping facilities, with 54,100 opportunities (232 campsites).

The recreation targets for Aylmer District were generated from a number of assumptions, among which was the level of use received by Aylmer District provincial parks in the late 1970's. Changes in patterns of use, influenced by improvements in the parks, the broader economic situation and the improved water quality of Lake Erie, for example, suggest that the target established for Aylmer District is conservative. Still, the recreation targets exceed the existing picnicking and camping opportunities, while being slightly less than existing opportunities for swimming. Considering the available potential for development in existing parks, chiefly Iroquois Beach, the targets can be achieved.

In candidate parks, such as Komoka, it is anticipated that the area will eventually be required for park purposes. Regardless, Komoka does contain significant earth and life science features.

Before a commitment is made to any specific course of action, detailed investigation is necessary to verify:

- demand projections to confirm the need (if any) for additional facilities;
- present provincial park potential to accommodate additional demand; and
- the acceptability by other agencies, for example, conservation authorities, and individuals to providing a larger share of the necessary facilities.

d. Provincial Parks

In Aylmer District, the four existing provincial parks contribute to the various provincial parks targets.

Iroquois Beach Provincial Park

- contributes to achieving the targets for:
  - heritage appreciation
  - recreation and tourism

Port Bruce Provincial Park

- contributes to achieving the targets for:
  - recreation and tourism

John E. Pearce Provincial Park

- contributes to achieving the targets for:
  - protection of historical resources
  - heritage appreciation
  - recreation and tourism

Trillium Woods Nature Reserve Provincial Park

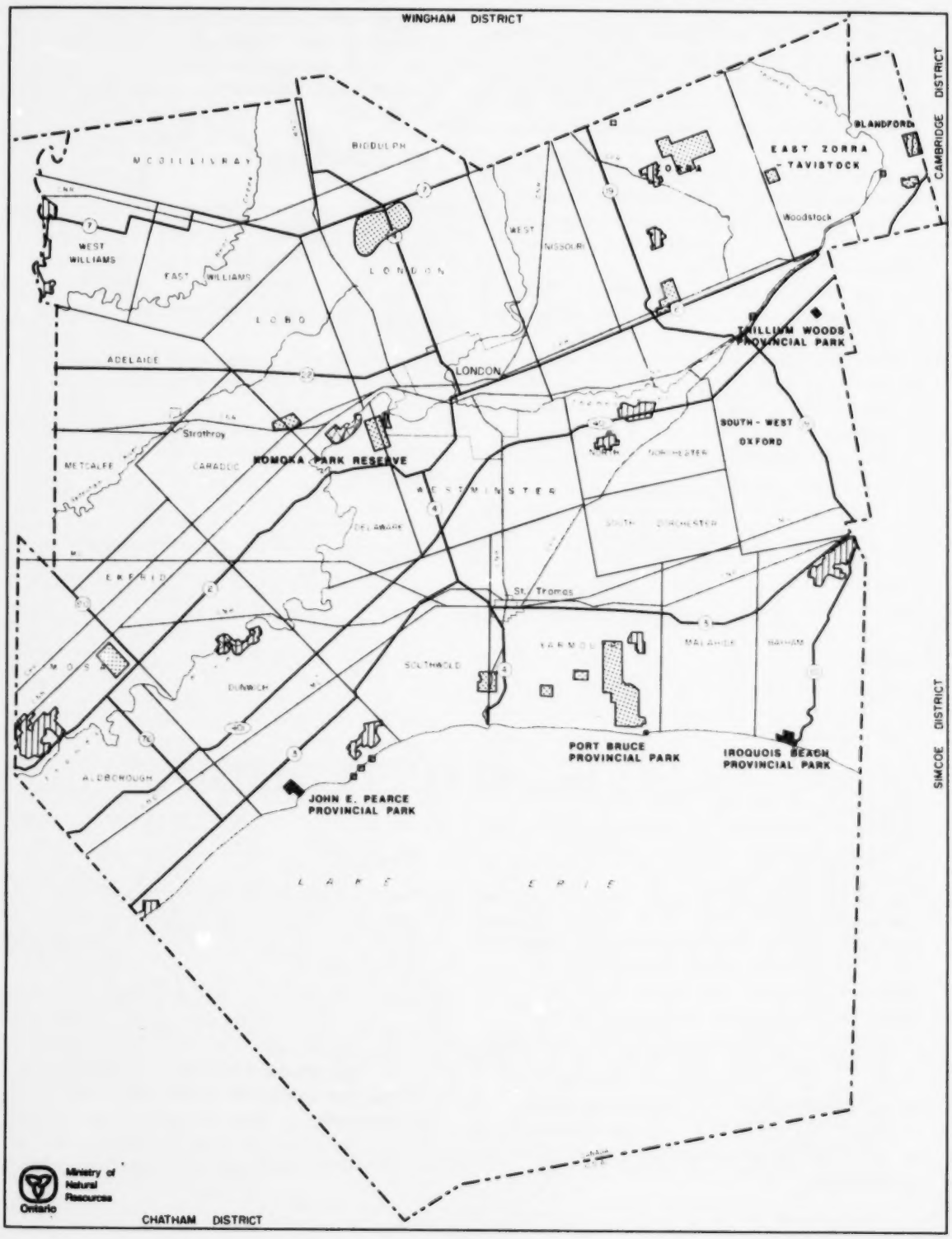
- contributes to achieving the targets for:
  - protection of significant life science features
  - heritage appreciation

No one park can be all things to all people. Accordingly, to provide a diversity of heritage appreciation and recreation experiences, different park environments are required. Distinctive experiences and park environments are provided through six classes of parks: waterway, wilderness,

AYLMER DISTRICT

PROVINCIAL PARKS PROGRAM

Map 8



nature reserve, historical, natural environment and recreation parks. It follows therefore that these park classes are intended to be a primary means through which park objectives and targets are implemented throughout Ontario's provincial park system.

4. STRATEGY

a. Protection

- Trillium Woods and John E. Pearce Provincial Parks, and the lands acquired in the Komoka Park Reserve will be managed to protect those significant earth science, life science or historical features found in these areas.

- Land uses or land management practices that are complementary to conserving the remaining significant features will be encouraged.

b. Heritage Appreciation

- Opportunities for unstructured exploration and appreciation of the natural environments and historical features within existing provincial parks will be provided through visitor services. Visitor services programming may include a wide variety of communications, recreation, interpretation and outdoor recreation messages or activities.

- Co-operation with the Ministry of Citizenship and Culture and other groups and agencies will occur, to encourage the development of heritage appreciation programs for natural, cultural and historic resources on Crown lands and where appropriate, on private lands.

c. Recreation and Tourism

- Additional campsites and picnic tables for day use are planned for Iroquois Beach Provincial Park. The present level and quality of day use recreation opportunities will continue to be provided in John E. Pearce Provincial Park. A management plan will be completed for the candidate provincial park in the Kilworth/Komoka area.

Map 8 identifies the locations of existing provincial parks, candidate parks and significant earth and life science features.

5. INTEGRATION

The provincial park programs will consider the objectives of other ministry programs.

Specific program integration statements are outlined in Part V, Application, 2. Program Integration.

G: general recreation

1. OBJECTIVES

The ministry's recreation management efforts are directed primarily to hunting, fishing and provincial parks. There are a number of other activities which the ministry carries out for which no objectives have been developed. Tentative objectives for this other recreation might be:

- to provide and to encourage a wide variety of outdoor recreation opportunities ranging from day use to back-country experiences;
- to identify, select and protect provincially significant natural and cultural resources; and
- to provide an economic contribution through tourism.

2. TARGETS

No specific targets have been identified.

3. DISCUSSION

The Lake Erie shoreline, inland lakes and connecting rivers in Aylmer District provide important recreation and tourism resources. They, in turn, provide an important, although in many cases seasonal, contribution to the local economy.

Part of the ministry's recreation objective is to

provide, on Crown land, and encourage, on private land, a continuous contribution to the economy from tourism and its related industries.

The ministry directly contributes to the achievement of general recreation objectives by providing trails and other recreation facilities on agreement forest lands, wildlife management areas and other Crown lands.

Numerous groups and agencies also contribute to the achievement of these objectives by developing trails and other recreational facilities and protecting significant natural and cultural resources.

4. STRATEGY

- The Beattie Access Point recreation area will continue to provide the present number of swimming opportunities. An increase in the number of day use picnic tables will be considered along with additional parking facilities and improved access.
- Assistance to groups and agencies will be provided through the granting of permission to develop recreational trails on appropriate public lands.
- Contact with local trail clubs will be maintained and advice provided on the development and management of facilities by these and other suppliers of general recreation.
- A variety of recreation opportunities may be provided on undesignated Crown land.

5. INTEGRATION

General outdoor recreation and outdoor recreation opportunities will be provided considering other ministry program objectives.

Specific integration statements are outlined in Part V, Application, 2. Program Integration.

H: land administration

1. OBJECTIVE

The objective of land administration in southern Ontario is to facilitate the orderly development, and conservation of Ontario's land and water resources for the continuous social and economic benefits for the people of Ontario.

2. TARGET

Specific land administration targets have not been developed.

3. DISCUSSION

The inland portion of the Aylmer District is 643,194 hectares (1,589,311 acres) in size. The water portion comprising Lake Erie increases the total area by 294,200 hectares (727,000 acres). The Lake Erie shoreline in Aylmer District is 87 kilometers (54 miles) in length.

Ninety-six percent of the total land base outside urban areas is privately owned, 4 percent falls under federal, provincial and municipal jurisdiction. Of the 4 percent or 25,727 hectares (63,550 acres) of public land outside urban areas, 65 percent is made up of highways and municipal roads, 22 percent conservation authority lands, 5 percent municipal lands, 5 percent Crown land administered by the Ministry of Natural Resources and 3 percent federal lands. At the municipal level, there are 26 townships, 3 cities, 5 towns, 13 villages and 200 settlements of various sizes.

4. STRATEGY

- The Crown's proprietary interest in land will be maintained.
- Crown land will be disposed of, while considering the availability of suitable private land, the potential competition with the sale of private land and potential impact of adjacent

use.

- Assistance will be provided in the maintenance of a geographical referencing system, to contribute to orderly development on all lands.
- Disposition of Crown land will take place in accordance with the policies and designations of land use in official plans, where they exist.

5. INTEGRATION

Land administration activities will consider other ministry program objectives.

Specific integration statements are outlined in Part V, Application, 2. Program Integration.

V APPLICATION

1. MEANS OF APPLICATION

Application of the *Aylmer District Land Use Guidelines* will occur through:

- the preparation and approval of various resource management plans and specific ministry development projects;
- the review of specific development proposals by other proponents on both Crown and private land;
- the administration of provincial legislation and policy;
- liaison and co-operation with other government ministries and agencies;
- education and extension programs with private landowners, municipalities and interest groups; and
- internal resource management program integration.

2. PROGRAM INTEGRATION

Integration of programs and multiple use of resources in a responsible manner will be undertaken as follows:

- Forest management programs and operations will be assessed in conjunction with known high potential mineral aggregate deposits and areas licenced for pit and quarry operations.
- Planting of commercially valuable trees will be encouraged as part of the pits and quarries rehabilitation program.
- Forest management practices will consider wildlife habitat and wildlife benefits when tree harvesting or planting.
- Forestry activities in cold water stream areas will consider potential implications to fish species and habitat.
- Management of forest resources in provincial parks will be encouraged where applicable.
- Agreement forests and Crown land will continue to provide public access for general recreation.
- Hunting and fishing opportunities will be maintained and, where feasible, expanded in agreement forests and on Crown land.
- Mineral and petroleum resources demonstration projects will be promoted where appropriate in provincial parks, candidate parks and other Crown land.
- Mining exploration and extraction may be permitted in candidate parks, under controlled conditions.
- Mineral exploration and development programs will be encouraged to utilize methods which are compatible with maintaining the integrity of significant earth and life science features.
- Pit and quarry rehabilitation will be promoted so as to be beneficial to fish, wildlife, forestry and recreation concerns.
- Wildlife interpretive information will be provided in provincial parks.
- Wildlife viewing opportunities and the protection of sensitive, rare, threatened or endangered species or communities will be promoted in provincial parks.
- Stream rehabilitation projects will consider wildlife and forestry concerns.
- Fire management plans for Crown land will be prepared and implemented where appropriate.
- Plans for water management will be prepared in conjunction with conservation authority watershed plans and implemented to protect life and property and to provide optimum overall benefits.
- Resource program plans and activities will consider conservation authority watershed plans.
- Appropriate management of fish, wildlife, vegetation and cultural resources in provincial parks, consistent with park policies will occur.

3. PROGRAM MANAGEMENT GUIDELINES

There are many guidelines that are more resource management oriented rather than land use oriented. None the less, they are essential to target achievement. The following guidelines should be read in conjunction with the *Land Use Guidelines* in the preceding sections of this report. Some of these resource management guidelines contain elements of land use in them, but are not solely land use oriented as are those in the preceding sections of this report. These program management guidelines also contain operational elements.

a. Forestry

- High quality woodlots will be identified and managed.
- Programs under the *Woodlands Improvement Act*, the *Forestry Act* and the Forest Advisory Services will be continued and promoted to establish, maintain and improve areas that are best suited for forestry purposes. Thinning of young hardwood forests will be promoted.
- Marking of mature and over-mature stands will be increased for harvesting and tending.
- Advisory services will be provided to municipalities to assist them with respect to tree cutting by-law enforcement.
- Suitable areas of Crown land for establishing future plantations will be identified.
- Forest production on Crown land will be maintained, managed and increased on a selective basis.
- An increase in forested lands in areas represented by current forestry agreements will be promoted.
- Low capability agricultural lands suitable for establishing plantations will be identified.
- Fuelwood as a viable woodlot product will be promoted.
- Fuelwood marking and marketing services will be provided to the private landowner.
- Production and marketing of forest products will be promoted in association with the development of selected small businesses in communities.
- Private landowners will be informed and educated in basic forest ecology, forest management practices and principles and the forest management services available.
- The public will be educated in the socio-economic benefits of all aspects of forest management.
- Plantation thinning markets and low quality hardwood markets will be encouraged.
- Involvement with the local forestry industry in the areas of harvesting techniques, forest product utilization, wood quality maintenance and source supply will be maintained.
- Establishing windbreaks will be promoted to protect agricultural soils from wind and water erosion.
- Rural landowners will be assisted in the establishment of windbreaks and shelterbelts to protect crops and livestock, which will ultimately enhance yields.
- Marking of mature and over-mature stands will be increased for fuelwood production.
- Rural landowners will be encouraged to plant and develop windbreaks and shelterbelts to reduce heating costs and enhance the aesthetic value of their property.
- The results of the 1981 forest resources inventories will be analyzed.
- Forest resources inventories will be updated continuously.
- Professional advice in forest management practices will be provided to conservation authorities.
- Fuelwood inspection and marketing services will be provided to conservation authorities.

b. Mineral Aggregate

- The Ministry of Natural Resources will seek the recognition and protection of all legally existing pits and quarries and high potential and secondary mineral aggregate resource areas.
- The Ministry of Natural Resources will seek to include suitable mineral aggregate policies in municipal planning documents.
- A public education program for municipalities, the aggregate industry, other government agencies and the general public will be developed to provide mineral aggregate resource data and information update in the mineral aggregate resources program.
- Further studies will be undertaken for mineral aggregate resources and will include supply resource location, demand and constraint analysis.
- Aggregate extraction will be monitored annually on a township basis.
- Rehabilitation will be promoted in licenced and wayside pits and quarries and studies undertaken to determine the rehabilitation priorities for abandoned pits.
- All resource extraction will take place in conformity with applicable government acts and regulations.
- Consideration will be given to the protection of major infiltration and recharge areas when licencing pits and quarries.
- The mineral resource potential of an area will be evaluated before a permanent commitment of public land to non-mining uses occurs.
- The development and use of new technologies will be encouraged for more efficient and safe extraction of mineral resources.
- The utilization or protection of known and potential deposits and occurrences from incompatible land uses will be encouraged.
- The production of high quality calcium carbonate from limestone will be encouraged.
- The development and utilization of limestone and dolostone for the building and stone industry will be encouraged.
- Protection of known limestone and dolostone deposits for extraction will be promoted.
- Data will be collected to determine the quality and extent of clay deposits suitable for manufacturing purposes.

c. Minerals and Fossil Fuels

- Research into the marketability of and new applications for gypsum, lead-zinc sulphides and peat will be encouraged.
- Exploration for the development of gypsum, lead-zinc sulphides, peat and other mineral deposits will be encouraged.
- Secondary and tertiary oil recovery with minimum disturbance to the environment will be encouraged.
- Assessment of oil shale resources will be encouraged.
- Deep drilling for petroleum deposits will be encouraged.
- Environmentally sound utilization of disposal capabilities of porous formations will be encouraged.
- A public education program will be developed to provide resource data and an information update on petroleum resources.

d. Fisheries

(i) Sport Fishing:

- Levels of angling activity, success rates and species harvested will be identified through creel census.
- An efficient, up-to-date watershed-based fish inventory program will be developed, directed towards more effective fisheries management.
- Significant pike, smallmouth bass and yellow pickerel fisheries will be maintained through stream improvement works, fisheries management agreements, enforcement activities and plan review and input.
- The recreational use of those fish species which are presently being under-utilized will be promoted.
- Access to recreational fishing waters will be improved by informing the angling public of the rights of adjacent landowners and improving angler-landowner relations.
- Fish resources will be managed in a cost-effective manner.
- Uses consistent with known resource potential will be regulated.
- Other government agencies, interest groups and private landowners will be asked to support stream protection and rehabilitation programs.
- Operational conflicts between the *Drainage Act* and both the *Lakes and Rivers Improvement Act* and the *Fisheries Act* will be identified and resolved.
- Private landowners will be encouraged to remove unnecessary dams situated on significant coldwater streams.
- A public relations and education program on sport fishing will be developed.
- The ministry will work with the conservation authorities in promoting the tangible and intangible benefits of fisheries and their habitat, in providing public education on the adverse effects associated with incompatible use and disturbance of fisheries and their habitat.
- Professional advice and co-operative manpower and funding will be provided by the ministry for conservation authority stream improvement projects.
- Where applicable, the ministry will support recommendations made by various conservation authority committees, such as the Thames River Implementation Committee and the Watershed Plan Steering Committees.

(ii) Commercial Fishing:

- Quotas for the commercial fish harvest will be established.
- The commercial fishermen will be made aware of the fish population dynamics of the Lake Erie fish community.
- Enforcement practices will relate directly to commercial fish quotas.

(iii) Bait Fishing

- Bait fish harvests will be consistent with the productivity of individual fish communities.
- More information on harvest and the associated bait fish community will be collected to assist in providing more effective management of the bait fish resource.
- Conditions of licence bait fishermen will be enforced.
- Amendments to legislation will be proposed to restrict when and where the harvest of bait fish can occur.

e. Wildlife

- All wildlife species (both non-game and game) on public and private lands, will be protected, conserved and managed and the perpetuation of diverse high quality habitats will be ensured.
- The ministry will work co-operatively with government agencies at the federal, provincial and municipal levels and with private landowners, developers and other members of the private sector to achieve the protection of all wildlife resources (both non-game and game).
- The ministry will identify endangered, threatened or rare species, significant populations of wildlife species (both non-game and game) and protect or manage these populations if the best available scientific, social and economic data indicate that such action is necessary to achieve the program objectives and targets.
- Habitat management consulting services will be provided to landowners.
- The maintenance or development of access to

private lands will be encouraged.
- Management plans will be prepared for all important wildlife habitats.
- The ministry will maintain access to and encourage the retention of municipal access to lands important for wildlife uses.
- Agreements will be entered into with property owners to ensure habitat on private land is protected.

(i) Hunting (Big Game, Small Game and Waterfowl):
- Suitable critical wildlife habitat will be identified for development, protection or acquisition in conjunction with municipalities, special interest groups, private landowners and others.
- Other agencies will be encouraged to purchase lands suitable for hunting and make them available for public use.
- An effective wildlife population and habitat inventory system will be developed and implemented.
- Appropriate hunting regulations will be enacted to maintain wildlife populations on a sustained yield basis, based on an understanding of the dynamics of wildlife populations.
- Future wildlife management areas will be identified for acquisition.
- Tangible and intangible benefits of wildlife habitat will be promoted.
- Enforcement effectiveness will be evaluated and adjusted accordingly for maximum results.
- The status of Yarmouth Game Preserve under the *Game and Fish Act* will be revised and redefined as a migratory bird sanctuary under the *Migratory Bird Convention Act.*
- The boundaries of Yarmouth Game Preserve will be redefined in accordance with waterfowl needs.
- A public relations program will be developed to educate the public in the areas of wildlife importance and the adverse effects associated with intensive use and the disturbance of wildlife and wildlife habitat.
- User groups will be educated in the private property rights of the landowner.
- Specific control action will be undertaken where wildlife destroys domestic animals.
- Conservation authorities will be encouraged to maintain and/or enhance habitat on their land holdings for the purpose of wildlife viewing by the general public.
- Professional advice in wildlife management practices will be provided to conservation authorities.
- The ministry will work with the conservation authorities in promoting the tangible and intangible benefits of wildlife and their habitat, in providing public education on the adverse effects associated with incompatible use and disturbance of wildlife and their habitat and in encouraging wildlife agreement areas with private landowners.

(ii) Trapping:
- An up-to-date record of fur harvest by species and location will be maintained utilizing the fur program computer printouts.
- Workable fur management units will be established.
- A fair system consistent with legislation and policy will be devised to allocate the target by fur management unit.

(iii) Other Uses:
- Greater non-government participation in the identification and management of wildlife, including endangered, threatened and rare species, will be encouraged.
- Extension services will be provided, which promote an understanding of the value of wildlife resources (both game and non-game), and non-consumptive uses and which enhance social benefits and tourism.
- The ministry will encourage and assist conservation authorities to protect endangered species and their habitats where these occur on conservation authority lands.
- Input will be provided into the development of regulations under the *Endangered Species Act* as they relate to specific species and their habitat.
- Production areas and the habitat they depend upon will be protected.
- The habitat of any rare and threatened species will be maintained.
- Preservation and viewing of wildlife and wildlife habitat will be encouraged.
- Various agencies and private landowners will be encouraged to maintain areas of high quality wildlife habitat and enhance lower quality wildlife habitat for the purpose of public wildlife viewing and appreciation.
- A public education program will be developed promoting the appreciation of wildlife, wildlife habitat and wildlife ecology.
- Private landowners will be encouraged to post signs on their property permitting public access for wildlife viewing.
- Wildlife viewing and appreciation opportunities will continue on Crown land, namely the Fingal, Aylmer and Calton Swamp Wildlife Management Areas.
- Private landowner agreements will be established to provide access for wildlife viewing.
- Needs and values associated with wildlife viewing will be promoted jointly with local naturalist clubs, sportsmen groups and other

similar user groups.

f. Provincial Parks

(i) Protection:

- A comprehensive field study will be undertaken to determine the exact boundaries of the significant earth and life science natural features.
- Within the context of the provincial parks planning system policy, one or more appropriate sites will be examined and evaluated for the potential establishment of an additional natural environment park in Aylmer District.
- Where it is felt necessary by the ministry, a more detailed study of a feature may be conducted where it is anticipated that protection of the feature might be a land use or land planning concern.
- Where significant earth and life science features include private land, the ministry plans to work with the owners to encourage and assist them in protecting and caring for the features on their properties. A similar approach will be followed with municipalities and conservation authorities.
- For the areas of natural and scientific interest, the ministry will encourage investigations to identify and study them, and will foster an exchange of information about areas of natural and scientific interest with municipalities and conservation authorities, and upon request with individuals or interested parties.

(ii) Heritage Appreciation:

- The ministry will continue to provide heritage appreciation opportunities through visitor services programming consisting of communications, interpretation, recreation and outdoor education messages, activities and facilities at Iroquois Beach Provincial Park.
- The present quality and level of day use recreation opportunities, consisting of self-use communications and interpretation facilities only, will continue in John E. Pearce Provincial Park and Trillium Woods Nature Reserve Provincial Park.
- The ministry will encourage public appreciation of significant earth and life science features by:
  - developing interpretive material on the district's system of significant earth and life science features, which will include information on the ownership of and public access rights to each feature so as to discourage unwanted intrusions on private property by those interested in the significant earth and life science features of the district;
  - where appropriate, attempting to secure access for public appreciation of specific features in cooperation with landowners;
  - where appropriate, erecting plaques or developing other facilities for interpretation of specific features in co-operation with landowners; and
  - where appropriate, encouraging scientific and educational uses of specific features in co-operation with landowners.

(iii) Recreation and Tourism:

- The district will maintain a working relationship with local tourism bureaus and tourist councils, local municipalities, Chambers of Commerce and the Ministry of Tourism and Recreation and co-operatively develop a comprehensive program to monitor recreation supply and demand in the Aylmer District.
- Other agencies and the private sector will be assisted in the planning of recreation areas by providing professional advice, financial assistance where appropriate, and plan review services upon request.
- Local municipalities, other agencies and the private sector will be encouraged to provide and manage access points, where appropriate.
- The supply and demand for camping, picnicking and swimming activities will be monitored to determine when expansion should occur.
- Iroquois Beach Provincial Park will operate to contribute to the achievement and provision of recreational opportunities.
- Conservation authorities will be encouraged to provide and maintain access points and recreation trails for cross-country skiing, snowmobiling and hiking.
- The Ministry of Natural Resources will assist in the planning and development of recreation areas by conservation authorities by providing professional advice upon request.

(iv) Parks:

- The ministry will continue to operate Iroquois Beach Provincial Park as a recreation class park.
- The ministry will continue to operate John E. Pearce Provincial Park as a natural environment class park.
- In recognition of its importance as an important life science natural area, Trillium Woods Nature Reserve Provincial Park will continue to represent a nature reserve class park.
- The protection of significant earth and life science features will be achieved through means such as landowner agreements rather than by creating new nature reserve class parks.
- The ministry will seek to identify an area that is representative of Aylmer District's inland landscape that could provide additional

heritage appreciation opportunities within an area that normally would be identified as having natural environment park values.

g. Land Administration

- The Crown's proprietary interest in land will be maintained.
- Overall plans for multiple use of Crown land will be developed, implemented and maintained.
- Access roads on Crown land will be developed and maintained.
- Crown land will be made available for development and private initiatives will be encouraged.
- The *Public Lands Act* will regulate the dumping of fill and other materials and the construction of docks, marina facilities and other structures on Crown land.
- The removal of earth materials and/or aggregate from any bed, bank, beach or shore will be regulated by the *Beach Protection Act* where appropriate.
- The construction of dams and ponds on watercourses will be regulated under the *Lakes and River Improvement Act* as appropriate.
- Disposition of Crown lands, as determined by planning and/or management priorities, will be co-ordinated.
- Interim property management plans will be utilized to manage acquired lands, as required.
- Conservation authorities and the Ministry of Natural Resources will co-operate in municipal plan input and review functions.
- Conservation authorities will be supported in their administration of fill, construction and alteration to waterways regulations made under the *Conservation Authorities Act*
- The Aylmer District, will continue to liase with other agencies with respect to technical reviews under the *Drainage Act* and the *Lakes and Rivers Improvement Act.*
- Conservation authorities will implement programs for flood and erosion control within member municipalities within their respective watersheds.

4. CROWN LAND

On the 5 percent of 1,336 hectares (3,300 acres) of Crown land owned and administered by the Ministry of Natural Resources in Aylmer District, the implementation of the *Aylmer District Land Use Guidelines* will take the form of park master plans, interim property management plans, forest management plans, wildlife management plans, fisheries management plans and integrated resource management plans combining many resource management concerns.

On Figure 15, the Crown land in Aylmer District is identified and information on management emphasis is provided.

5. EXTERNAL INTEGRATION/ CO-ORDINATION—LANDS OF OTHER AGENCIES

The *District Land Use Guidelines* have no legal status. The control of land use on private land in municipalities is exercised by those municipalities under the authority of the *Planning Act*, which is administered by the Ministry of Municipal Affairs and Housing.

The Ministry of Natural Resources recognizes that private landowners, other government agencies, municipalities, conservation authorities and interest groups are key partners in any effort to achieve effective and integrated resource management. The ministry will continue to work with these groups, especially with municipalities through the ministry's plan input and review program to ensure that resource values are considered in local planning documents.

a. Private Land

Approximately 96 percent of the land is private. Many of the ministry's objectives and targets depend on these lands for their achievement. It is of primary importance that the ministry work closely with private landowners to help achieve optimum use of their natural resources. The ministry has many programs designed to do this. The foresty program provides advisory assistance and management agreements for private landowners. The mineral resources program provides information on aggregate potential and pit and quarry licencing procedures. The fossil fuels program provides information on the locations of oil and natural gas fields and pools, in addition to well locations and requirements for plugging and capping abandoned wells. The fish and wildlife program provides advice on habitat management and improvement such as for streams, ponds, marshes and other wildlife habitat. The parks program is currently working on landowner agreements for the protection of significant earth and life science features.

b. Federal Lands

Federal land constitutes 0.3 percent or 800 hectares (1,920 acres) of the land base. This includes such areas as airports, post offices, a federal wharf and national historic sites.

In the process of expansion of existing facilities and the establishment of new federal facilities,

FIGURE 15 GUIDELINES FOR CROWN LANDS

Name	Location	Ha	Acres	Management Emphasis	Secondary Use(s) To Occur
Calton Swamp	Malahide Township	40	99	Wildlife Management	Passive Recreation
Beattie Access Point	Aldborough Township Port Glasgow	8	21	Access Point • recreation	
Iroquois Beach	Port Burwell	227	560	Provincial Park • recreation	
Aylmer Wildlife Management Area	Malahide Township	156	385	Wildlife Management	Wildlife Viewing
Fingal Wildlife Management Area	Southwold Township	293	725	Wildlife Management	Forestry Passive Recreation
Port Bruce	Port Bruce	5	13	Provincial Park • recreation • proposed to revert to access point	
John E. Pearce	Dunwich Township	68	168	Provincial Park • recreation • protection of historical site	
Lockhart Pond	Blandford Township	39	96	Wildlife Management • fishing • recreation	Forestry
Vansittart Woods	Blandford Township	101	249	Integrated Resource Management • forestry • recreation • outdoor education • wildlife management	
M.T.C. Blandford Hwy #2 & 401[1]	Blandford Township	5	13	Integrated Resource Management 13b forestry • recreation	Hunting
M.T.C. Fairhaven Lake[1]	Blandford Township west of Fairhaven Lake	5	13	Integrated Resource Management • forestry • recreation	Hunting
M.T.C. Service Centre[1]	Dunwich Township	82	202	Integrated Resource Management • forestry	Recreation Hunting Trapping
M.T.C. properties Dunwich[1]	along 401 in Dunwich Township	50	123	Integrated Resource Management • forestry • recreation • hunting • trapping	
M.T.C. properties Southwold[1]	along 401 in Southwold Township	40	99	Integrated Resource Management • forestry • recreation • hunting • trapping	
Southwold Crown Game Preserve	Southwold Township	39	96	Forestry	Recreation
McKay Forest	Southwold Township, Paynes Mills	39	96	Forestry • recreation • picnic area	Hunting Trapping
Ford Plant M.T.C. property[1]	Westminster Township	6	16	Integrated Resource Management • forestry • recreation • hunting • trapping	
Highbury Avenue	Westminster Township	2	5	Integrated Resource Management • recreation • wildlife management	Outdoor Education

FIGURE 15 GUIDELINES FOR CROWN LANDS (continued)

Name	Location	Ha	Acres	Management Emphasis	Secondary Use
Trillium Woods	West Oxford Township	10	25	Provincial Nature Reserve Park • protection of significant life science feature	Passive Recreation and Heritage Appreciation
Hickson Trail	East Zorra Township	24	60	Proposed Recreation Area • recreation • hunting	
Komoka Park Reserve	Delaware and Lobo Townships	123	303	Candidate Recreation Provincial Park • recreation • protection of significant earth and life science features • heritage appreciation opportunities	Full development of this area as a park will occur sequentially to the existing aggregate operations

(1) M.T.C. refers to Ministry of Transportation and Communications' residual lands from the construction of Highway 4 and /or Highway 401, now being managed by the Ministry of Natural Resources.

the federal government will be encouraged to consider the resource management program objectives of the Ministry of Natural Resources.

c. Working With Other Government Agencies
The implementation of many of the guidelines outlined will require co-ordination with other provincial and federal agencies.

The ministry intends to work closely with a number of special agencies such as Ontario Hydro. Although in some cases these other agencies will assist the ministry in the implementation of its guidelines, there will also be instances where the ministry will be assigned a role in implementing the plans of other agencies and this may necessitate modifying some elements of the guidelines or adjusting priorities.

(i) Ontario Ministry of Agriculture and Food
The Ministry of Natural Resources recognizes the importance of agriculture. On private land, the ministry normally will not encourage or support activities or land uses which result in a long term loss of the amount of land in agricultural production. The ministry will encourage forestry, recreation and other compatible uses on high capability land presently not in agricultural production.

Generally, on public land the ministry will maintain high capability agricultural land or other sites as identified by the Ministry of Agriculture and Food, in uses which do not preclude the long term use of these lands for agriculture, should agricultural use become necessary or desirable.

(ii) Ontario Ministry of the Environment
The Ministry of Natural Resources will work closely with the Ministry of the Environment in meeting their requirements and in monitoring impacts on the environment related to natural resources.

The two ministries have jointly developed guidelines, in this regard, related to water quality and fisheries issues.

The Ministry of Natural Resources has a responsibility for identifying the fisheries values of water bodies with respect to meeting the Ontario government's mandate. This identification is based on the *Land Use Guidelines* and, as developed, local fisheries management plans. The Ministry of the Environment is responsible for determining existing water quality and predicting the effects of proposed development on water quality. The latter information is used by the two ministries to assess potential effects on fisheries values.

d. Indian Lands
Indian lands comprise 6,503 hectares (16,067 acres) or 1 percent of the total land base. The ministry will work in conjunction with the native people to promote forest management, the development of mineral aggregate and fossil fuel resources and the protection of fish and wildlife habitat and areas of natural and scientific interest.

e. Conservation Authorities
Conservation authorities are independent corporate agencies set up jointly, under the

Conservation Authorities Act, by the local municipalities and the Province of Ontario, to develop and implement water-related land management programs.

The *Conservation Authorities Act* is administered on behalf of the Province of Ontario by the Ministry of Natural Resources.

Conservation authorities are formed on a watershed basis. A conservation authority establishes and undertakes, in the area over which it has jurisdiction, programs designed to further the conservation, restoration, development and management of natural resources other than natural gas, oil, coal and minerals. Conservation authorities develop and implement programs for water and related land management to prevent loss of life and minimize property damage from flooding and erosion in the area over which they have jurisdiction, consistent with social, economic and environmental considerations. They identify and attempt to conserve those natural features of regional significance within the areas over which they have jurisdiction.

Conservation authorities are concerned mainly with water management. The other programs of the authorities are supportive of this and include shoreline management, erosion and sediment control, flood control, forest resource management, private land assistance programs, outdoor recreation, resource production and information and education. Consequently, conservation authorities play a large role at the local level in the delivery of services and natural resources programs to the public.

Eight conservation authorities have jurisdiction within Aylmer District, namely, Ausable-Bayfield, Long Point Region, Grand River, Kettle Creek, Catfish Creek, St. Clair Region, Upper Thames River and Lower Thames Valley. Municipal representatives are appointed to these agencies to provide program direction within the watershed. They receive a substantial portion of their funding through grants from the Ministry of Natural Resources, with the balance collected from the member municipalities. Funding is also received from other sources at both the federal and provincial levels. General program direction and technical assistance are provided to authorities by the ministry.

Conservation authorities throughout Ontario are currently involved in a watershed management planning program. These watershed plans will outline the long term direction of all authority programs. The primary programs of conservation authorities and the Ministry of Natural Resources in flood and erosion control, complement each other. Other conservation authority programs, particularly those in forestry, fish, wildlife and recreation, supplement the efforts of the ministry. Both agencies are making every effort to reduce duplication and overlap in their planning and ensure that the delivery of resource management programs achieves the greatest possible benefits to the people of Ontario.

Each authority will outline objectives and strategies in their plans with respect to resources management within their watershed. Conservation authority and ministry staff will co-ordinate their planning efforts to ensure that both plans are compatible and complementary. Mutual concerns can also be expressed on many plan input and review matters. Conservation authorities can contribute to the achievement of ministry objectives and targets.

f. Municipal Government

The *Aylmer District Land Use Guidelines* will provide direction to the ministry and its involvement in municipal planning. The ministry will continue to consult with municipal officials and private landowners.

There will be occasions when the ministry feels that certain land uses or proposed developments on private land, while in conformity with municipal planning documents, may impact on ministry programs or interests. In such situations the ministry will attempt to resolve the situation through discussions with the proponent, the municipality and the Ministry of Municipal Affairs and Housing.

In municipalities containing Crown land, there may be situations where municipal planning documents do not permit land uses on Crown land indicated as acceptable in the *Land Use Guidelines*. When this happens the ministry will undertake negotiations with the municipality to try and resolve the situation.

When the ministry receives a request for the disposition of Crown resources for a use which is in accordance with the district guidelines, but the land use is not recognized on Crown land in the municipality's official plan or zoning by-law, the ministry will work with the municipality in order to reach a solution.

Approximately 5 percent of 1,336 hectares (3,300 acres) of public land outside urban areas is municipal land. The combined county, township and conservation authority shared forestry agreements makes up 25 percent or 2,430 hectares (5,999 acres) of the total area of

productive forests under active ministry management. These lands contribute to the forestry target and to other targets.

Counties and townships are also involved with flood contingency plans, tree cutting by-laws and the development of resource management policies.

Planning boards and departments will be kept informed of ministry resource concerns and information through continued dialogue, liaising and communication. The direct involvement in the preparation of municipal plans and plan amendments as they relate to ministry concerns will be emphasized. Up-to-date files on all municipal plans, associated amendments and applicable planning activities will be maintained.

The effectiveness with which official plans address Ministry of Natural Resources' concerns varies from municipality to municipality. They provide a significant degree of control over privately owned lands and as such, are an important tool to assist in meeting the ministry's resource management targets.

Generally, the following program interests should be addressed in the preparation of municipal planning documents.

(i) Forestry

- all properties currently being managed for wood fibre production such as county forests and *Woodlands Improvement Act* areas;
- a land use designation which recognizes forest production areas and protects the forest resource for future management; and
- a "permitted use" policy which allows for wood fibre production and extraction;

(ii) Mineral Aggregate

- appropriate land use designations for the protection of mineral resource areas for future utilization; and
- a "permitted uses" policy which allows for the extraction of the resource and prohibits uses which would preclude the option of future extraction;

(iii) Fossil Fuels

- known oil fields and natural gas pools should be identified; and
- provisions to restrict buildings and structures in the vicinity of abandoned oil and/or natural gas wells until the Ministry of Natural Resources can determine if the hazards posed can be eliminated;

(iv) Fisheries

- policies which recognize the potential of fish for commerce and as a recreational resource; and
- policies for waterbodies containing a significant fishery resource should be included to ensure maintenance of water quality at a level consistent with the efficient management of the fishery;

(v) Wildlife

- land use management policies which recognize the potential of such resources and land use designations for important wildlife habitat;

(vi) Provincial Parks

- existing provincial parks and provincial park reserves and all lands approved for future acquisition for provincial park purposes within the planning area should be recognized;
- provincial parks and provincial park reserves should be clearly delineated on land use schedules;
- appropriate statements recognizing the presence of provincial parks and provincial park reserves;
- buffer lands adjacent to provincial parks and provincial park reserves should be in a land use category which will minimize any undesirable impacts on the recreational resources; and
- a "permitted uses" policy which enhances the recognition and retention of significant earth and life science natural features and historical features;

(vii) Land Administration

- the extent of Crown land within a planning area be recognized and delineated on land use schedules;
- the responsibility of the Crown through the Ministry of Natural Resources to determine the appropriate uses of and management practices for Crown land should be acknowledged in policy statements;
- designation of land uses on lands adjacent to Crown lands, which are compatible with any resource management activities being undertaken by the Crown or its agents;
- the existence and extent of any floodplain delineation or fill regulated areas which have been identified by a conservation authority should be recognized;
- hazard land policies and designations which restrict development on hazard lands should be applied where appropriate;
- hazard land areas, including areas susceptible to flooding and erosion, should be delineated on land use schedules;
- the extent of any Great Lakes shoreline areas susceptible to flooding, erosion or both, must be recognized; and
- appropriate land use designations and development restrictions on such lands should be recognized.

APPENDIX

A: highlights of public consultation

Public consultation in the preparation of the *Aylmer District Land Use Guidelines* began with the holding of a series of open houses beginning on June 10, 1982 in Woodstock. The public was asked to comment on the accuracy of the information and to provide any additional knowledge they had on the planning area and raise any problems or issues they felt should be addressed during the process. Two additional open houses were held on June 17 and 24, 1982 in St. Thomas and London respectively. A total of 195 people attended these open houses and 75 people took time to comment.

In July 1982, a draft of the guidelines was released. Open houses were held in Woodstock on August 11, 1982, in London on August 12 and 18, 1982 and in St. Thomas on August 19, 1982. A total of 241 people attended and 85 comments were received. In addition to the open houses, meetings were held with municipalities and interest groups at their request.

As of October 1, 1982, 500 drafts had been distributed to individuals, municipalities and a variety of agencies and interest groups. A summary of the contacts made and public responses up to November 1, 1982 is found in Tables 1 and 2 in this section of the report.

Based on the analysis and evaluation of the public input received, these *Land Use Guidelines* were prepared. The Minister personally reviewed the district summary and analysis of public comments and discussed the proposed *Land Use Guidelines* with the District Manager.

Copies of comments received as of November 1, 1982 are available for viewing in the Aylmer District office, the ministry's main office public reading room and the legislative library at Queen's Park.

TABLE 2 SUMMARY OF CONTACTS

Number of Background Information Open Houses	3	
Background Open House Attendance	195	
Number of Draft Strategy Open Houses	4	
Draft Strategy Open House Attendance	241	
Comment Sheets Distributed	27	
Draft Strategies Distributed (Handout plus Mail out)	500	
Phone Calls Received	2	
Speeches Made		
Meetings with Municipalities	3	(County Council)
Meetings with Conservation Authorities	1	(All Conservation Authorities)
Meetings with Other Agencies	0	
Meetings with Interest Groups	0	
Interviews with Media	11	(Both Open Houses Total)
District Staff Attendance at London Open Houses on Draft Strategy	32	

NUMERICAL ANALYSIS OF PUBLIC RESPONSES

TABLE 3 SUMMARY OF PUBLIC RESPONSES[1]

Category of Respondent / Response Documentation	Individual	Conservation Authority	Government Agency	M.P.P. (Member(s) of Provincial Parliament)	Municipal	Interest Group	Industry (Company or Association)	Category Unknown (Anonymous)	All Categories (Total)
Background Open House Comment Sheet	66	3	—	—	3	2	—	—	74
Background Open House Record of Conversation	—	—	—	—	1	—	—	—	1
Draft Strategy Open House Comment Sheet	44	—	—	—	—	—	—	—	44
Draft Strategy Open House Record of Conversation	2	—	—	—	—	—	—	—	2
Mailed Comment Sheet	5	—	—	—	—	—	—	—	5
Letter/Brief	10	6	2	—	2	3	2	—	25
Record of Conversation	—	—	—	—	2	—	—	—	2
Briefs on Land Use Planning	1	—	—	—	—	—	—	—	1
Mailed Responses on Parks Program	6	—	—	—	—	—	—	—	6

(1) As of November 1, 1982.

GLOSSARY

Candidate Park
An area designated in Ministry of Natural Resources' *Land Use Guidelines* which may be given official status as a park at some time in the future.

Capability
The natural ability of an area to provide continuous opportunity for benefits under an assumed level of management.

Capacity
The upper limit to which an area of land, or water, may be used or developed without an undesirable change taking place in the environment. Also called carrying capacity.

Cold Water Habitat
Waterbodies having characteristics that support cold water fish species, such as trout, whitefish and ciscoe.

Commercial Fishing
The taking for sale of fish other than game fish by means of any hook-line, trolling line, spear, minnow-trap, dip-net, gill-net, hoop-net, pound-net, seine-net, trammel-net, trap-net or trawl-net.

Crown Land
All land (including land under water) held by the province, both land which has never been sold and land which has been re-acquired.

Earth Science Feature
Public or private land where landforms of provincial interest have been identified.

Fish Community
An aggregation of different fish species living and interacting together.

Forestry Purposes
Includes the production of wood and wood products, provision of proper environmental conditions for wildlife, protection against floods and erosion, recreation and protection and production of water supplies.

Furbearers
Animals having commercially valuable pelts including beaver, mink, marten, otter, muskrat, fisher, fox, raccoon, wolf and lynx.

Goal
A general purpose to which the ministry aspires.

Habitat
The place or type of site where an animal or plant naturally or normally lives.

Hazard Land
Land, which because of its physical characteristics in combination with its location, present a risk for its occupants including loss of life, property damage and social disruption, for example, flooding.

Historical Park
A park area selected to represent the distinctive historical resources of the province in an open space setting and protected for interpretive, educational and research purposes.

Integrated Resource Management
The co-ordination of resource management programs to ensure that conflicts are minimized and that management which would benefit several programs is encouraged. Integrated management encourages multiple use but recognizes that in some circumstances management of areas for a single purpose may be necessary.

Interim Property Management
To provide management of land acquired by the ministry until such time as management is assumed by the intended user group.

Interim Use
Land and resource use and management practices which are permitted to occur over a period of time prior to the initiation of another identified use.

Land Use Planning
A process which culminates in a direction

regarding the use of land.

Land Use Guidelines
A document which displays direction concerning the use of land and water in a defined area. For Ministry of Natural Resources it identifies where and how the ministry can achieve its objectives in a specific district through the use of Crown land and through influencing the use of private land.

Life Science Feature
Public or private land where a natural habitat of provincial interest has been identified.

Management
The judicious use of means to achieve ends. Management may have various levels of intensity.

Multiple Use
A resource management or planning concept applied to very large areas to indicate that all basic uses are accommodated. Typically, two or more uses may occur on the same general areas at the same time or in sequence.

Natural Environment Park
An area incorporating outstanding recreation landscapes with representative natural features and historical resources to provide high quality recreational and educational experiences.

Nature Reserve
An area selected to represent the distinctive natural habitats and landforms of the province, and are protected for educational and research purposes to benefit present and future generations.

Objective
A quantifiable end result to be achieved.

Occasion
A measure of actual recreational use describing the number of times a recreation resource or facility is used by individuals in a given time period. An occasion is considered not to exceed one day in duration.

Operational Plan
A part of a resource management plan stating the extent (includes human and financial resources) of all work of any nature to be carried out during one or more years of the management period.

Opportunity
A measure of recreation supply. It is used to describe the number of times a resource or facility can be used (occasions of use) in a given time period. An opportunity is considered not to be greater than one day.

Optimum Sustainable Yield
The concept refers to the maximum level of resource harvest which can be sustained on a long term basis without causing detrimental effects on the resource base.

Policy
A decision concerning the objectives to be achieved and the means of achieving them.

Production Forest Land
An area dedicated to the growing of merchantable timber or the production of other forest products.

Productive Forest Land
Those lower capability agricultural lands both forested and open and higher capability lands with existing forest cover, from which the ministry hopes to achieve its forestry targets.

Program
An activity undertaken by the ministry to provide a service or manage a particular resource.

Proposed Candidate Park
An area having park potential which has been identified for public review and feasibility analysis through the ministry's land use planning process.

Public Land
Any land owned or administered by a public body or agency. It includes federal, provincial and municipally owned lands and lands held by agencies such as parks commissions and conservation authorities.

Recreation Park
An area which supports a wide variety of outdoor recreation opportunities for large numbers of people in attractive surroundings.

Resource
Any commodity that meets a need.

Resource Management
The control and co-ordination of the use of resources to achieve specific ends. Commonly applied particularly to natural resources.

Resource Management Plan
A plan by which the policies, objectives and targets usually of an individual program (except in the case of an integrated resource management plan) are implemented for a specific resource.

Sequential Use
Where one use is followed by another in planned sequence.

Site District
A fairly large subdivision of a site region based on a characteristic pattern of climate and landform features.

Sport Fish
For the purpose of this document, sport fish are the top predator species sought after by anglers.

Strategy
Planned actions or measures to achieve a desired end.

Target
A quantified end to be achieved or completed by a specific date.

Waterway Park
An area of outstanding recreational water routes with representative natural features and historical resources to provide high quality recreational and educational experiences.

Wilderness Park
A substantial area where the forces of nature are permitted to function freely and where visitors travel by non-mechanized means and experience solitude, challenge and personal integration with nature.

Work Plan
A plan prepared annually which defines what management activities are to be undertaken for that year.

AYLMER DISTRICT

GENERAL RESOURCE AREAS

Map 9

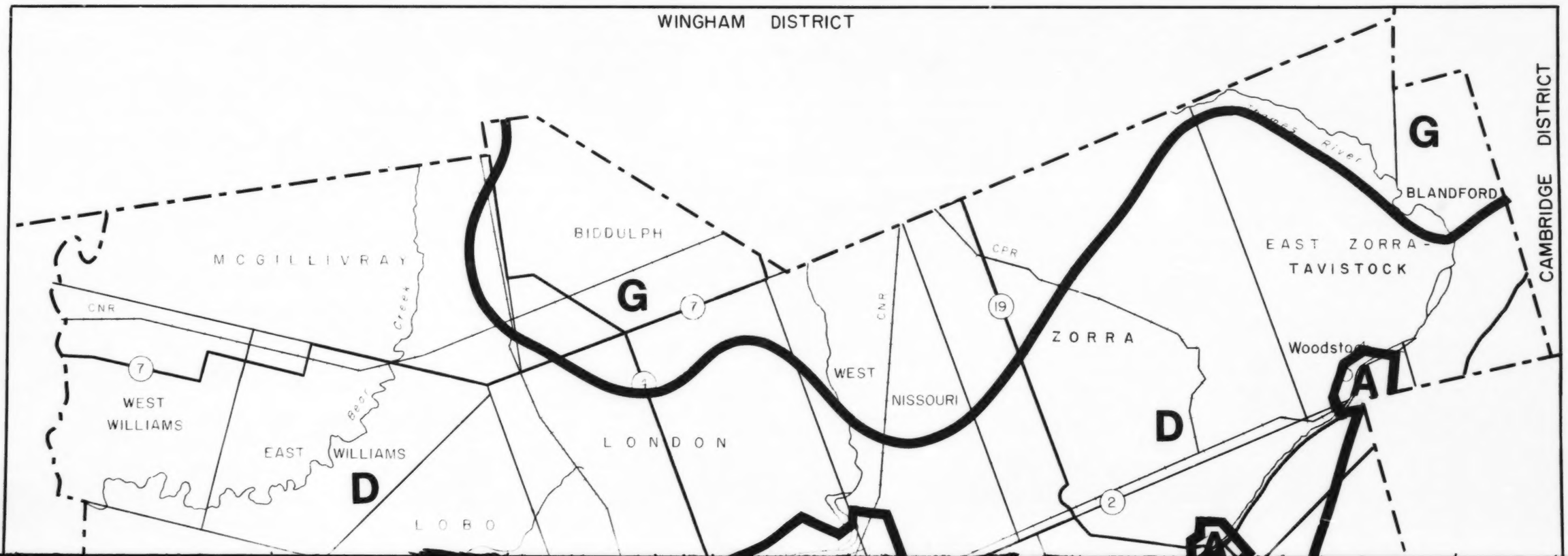
5 0 5 10 15 20 Kilometres

5 0 5 10 15 Miles

(2) Provincial Highway

Municipal Boundary

N



WEST WILLIAMS

EAST WILLIAMS

D

LONDON

D

LOBO

ADELAIDE

22

A

LONDON

A

CPR

CNR

Thames River

SOUTH - WEST OXFORD

19

E

A

CNR

Strathroy

METCALFE

River

Sydenham

CARADOC

NORTH DORCHESTER

D

WESTMINSTER

4

DELAWARE

SOUTH DORCHESTER

F

MC

A

A

A

MC

EKFRID

2

80

CNR

CPR

CNR

St. Thomas

A

3

MOSA

CPR

CNR

D

River

DUNWICH

MC

SOUTHWOLD

F

YARMOUTH

MALAHIDE

E

BAYHAM

4

19

401

76

B

B

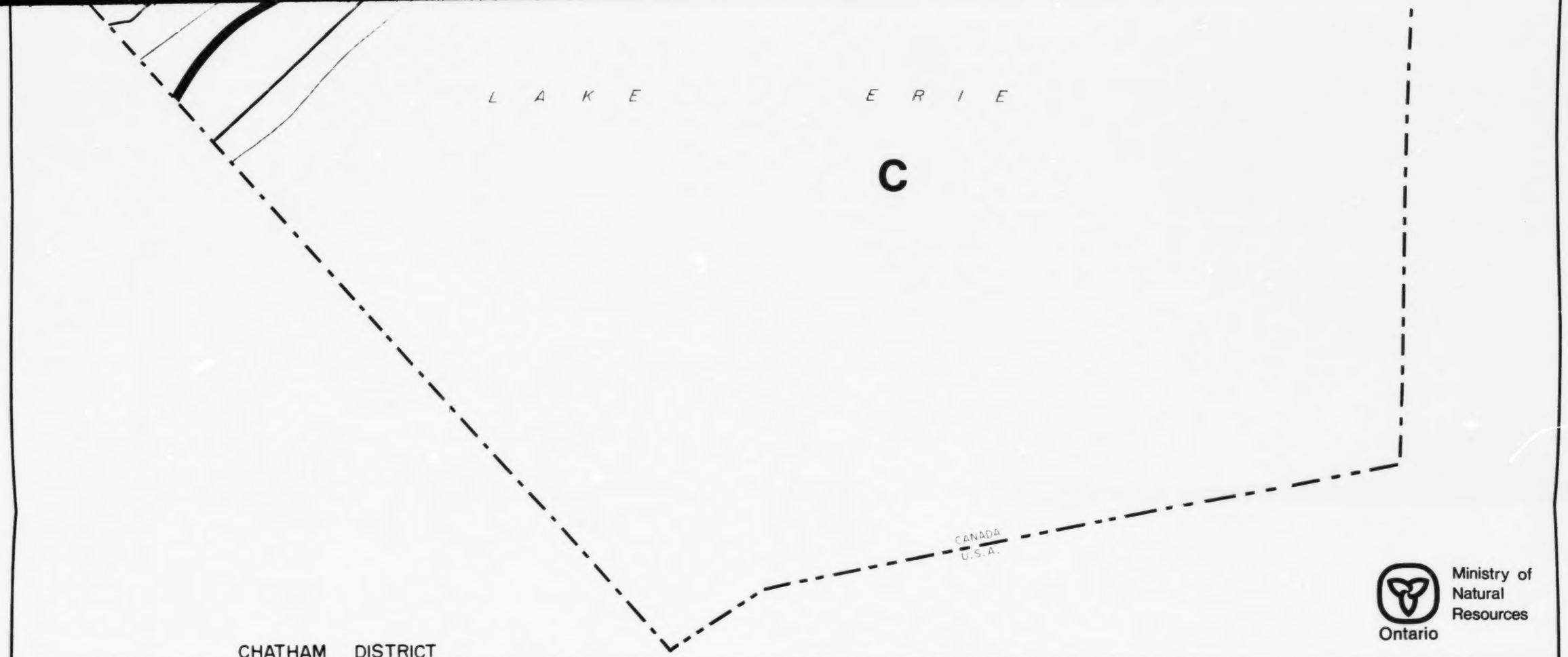
Thames

ALDBOROUGH

CBO

LAKE ERIE

SIMCOE DISTRICT



A: URBAN AREAS AND INDIAN RESERVES

Description - includes large urban communities, both cities and towns, that contain sizable and growing populations.

Resource Management Guidelines
- Within urban areas and Indian Reserves, programs may be involved in providing technical assistance and services upon request.

B: GREAT LAKES SHORELINE

Description - includes land/water interface and a strip of land along the shoreline including fish and wildlife, forestry and outdoor recreation activities.

Resource Management Activities
- Forestry
- Sport Fish Production and Harvest
- Big and Small Game Production and Harvest
- Fur Production
- Outdoor Recreation

C: GREAT LAKES - LAKE ERIE

Description - includes the shoreline and waters of Lake Erie that are within the district.

Resource Management Activities
- Commercial Fishing
- Sport Fish Production and Harvest
- Petroleum Resource Exploration
- Outdoor Recreation

D: MULTIPLE RESOURCE MANAGEMENT AREA I

Description - includes a primarily rural area with the natural resources of interest to the ministry scattered throughout prime agricultural lands.

Resource Management Activities
- Forestry
- Sport Fish
- Big and Small Game Production and Harvest
- Fur Production
- Mineral Resource Extraction
- Petroleum Resource Exploration and Production
- Outdoor Recreation

E: MULTIPLE RESOURCE MANAGEMENT AREA II

Description - includes a primarily rural area with a smaller natural resource base scattered throughout a primary agricultural area.

Resource Management Activities
- Forestry
- Sport Fish Production and Harvest
- Big and Small Game Production and Harvest
- Fur Production
- Outdoor Recreation
- Petroleum Resource Exploration and Production

F: LIMITED RESOURCE MANAGEMENT AREA I

Description - includes a primarily rural area with a smaller natural resource base scattered throughout a primary agricultural area.

Resource Management Activities
- Forestry
- Sport Fish Production and Harvest
- Big and Small Game Production and Harvest
- Fur Production
- Outdoor Recreation

G: LIMITED RESOURCE MANAGEMENT AREA II

Description - includes a primarily rural area with a smaller natural resource base scattered throughout a primary agricultural area.

Resource Management Activities
- Forestry
- Sport Fish Production and Harvest
- Big and Small Game Production and Harvest
- Fur Production